ORDER NO.DSD0603003CE

Service Manual

DVD Recorder

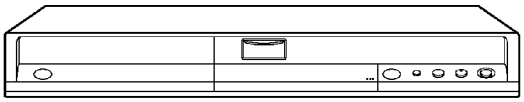
DMR-EH55EC / DMR-EH55EP / DMR-EH56EG

Vol. 1

Colour

(S).....Silver Type

(K).....Black Type



Notes: This model's RAM/Digital P.C.B.
Module are - RFKNEH55EC(EC)
- RFKNEH55EP(EP)
- RFKNEH56EG(EG).

When replacing with Main P.C.B. or EEPROM, "UNFORMAT" indication is displayed and HDD must be formatted.

When replacing with HDD, it is necessary to update the firmware.
Please prepare the update disc.
(After that, FORMAT is necessary)

After that, programme in the HDD will be lost.
In detail, please refer to each content in this service manual.

Caution:
Pairing of RAM Drive and Digital P.C.B. as "RAM/ Digital P.C.B. Module" have to be replaced together. If the pairing is changed, RAM Drive unit has to be re-aligned. Because the alignment data for RAM Drive Unit is stored in Digital P.C.B..

SPECIFICATIONS

Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

“DTS” and “DTS 2.0 + Digital Out” are trademarks of Digital Theater Systems, Inc.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, and 4,819,098, licensed for limited viewing uses only.

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MPEG Layer-3 audio decoding technology licensed from Fraunhofer IIS and Thomson multimedia.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

1. Safety Precaution

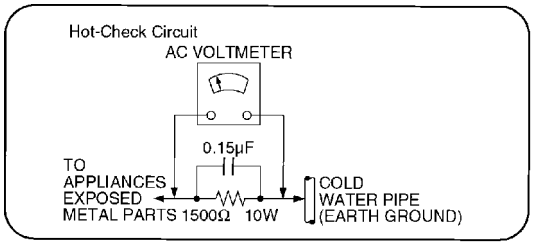
1.1. General guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage current cold check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1MΩ and 5.2MΩ.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

Figure 1



1.1.2. Leakage current hot check / (See Figure 1 .)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k Ω , 10 watts resistor, in parallel with a 0.15 μ F capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliampere. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2. Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatic Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatic Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistor-sand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or

semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. **Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise hamless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).**

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are imporant for safety.
These parts are marked by ⚠ in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

2.2. Precaution of Laser Diode

CAUTION:

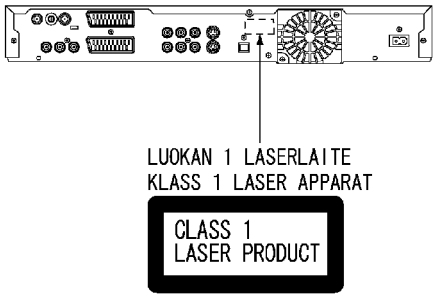
This product utilizes a laser diode with the unit turned "on", invisible laser radiation is emitted from the pickup lens.
Wave length: 662 nm (DVDs)/780 nm (CDs)
Maximum output radiation power from pickup: 100 μ W/VDE
Laser radiation from the pickup lens is safety level,but be sure the followings:

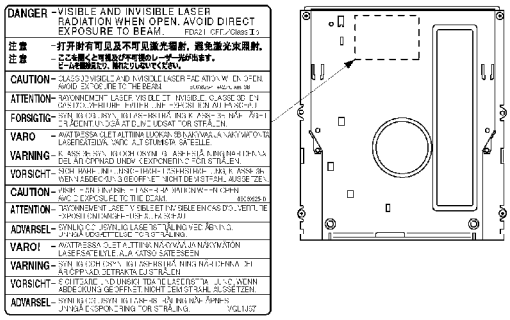
1. Do not disassemble the optical pickup unit, since radiation from exposed laser diode is dangerous.
2. Do not adjust the variable resistor on the pickup unit. It was already adjusted.
3. Do not look at the focus lens using optical instruments.
4. Recommend not to look at pickup lens for a long time.

ACHTUNG:

Dieses Produkt enthält eine Laserdiode.
Im eingeschalteten Zustand wird unsichtbare Laserstrahlung von der Laserinheit abgestrahlt.
Wellenlänge: 662 nm (DVDs)/780 nm (CDs)
Maximale Strahlungsleistung der Lasereinheit: 100 μ W/VDE
Die Strahlung der Lasereinheit ist ungefährlich, wenn folgende Punkte beachtet werden:

1. Die Lasereinheit nicht zerlegen, da die Strahlung an der freigelegten Laserdiode gefährlich ist.
2. Den werkseitig justierten Einstellregler der Lasereinheit nicht verstellen.
3. Nicht mit optischen Instrumenten in die Fokussierlinse blicken.
4. Nicht über längere Zeit in die Fokussierlinse blicken.





CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

2.3. Service caution based on legal restrictions

2.3.1. General description about Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.
The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30 degrees C (86°F) more than that of the normal solder.

Definition of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB using the lead free solder. **(See right figure)**	PbF

Service caution for repair work using Lead Free Solder (PbF)

- **The lead free solder has to be used when repairing the equipment for which the lead free solder is used.**
  (Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- **To put lead free solder, it should be well molten and mixed with the original lead free solder.**
- **Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.**
- **Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.**
- **Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30 degrees C (662±86°F).**

Recommended Lead Free Solder (Service Parts Route.)

- **The following 3 types of lead free solder are available through the service parts route.**
  RFKZ03D01K----------(0.3mm 100g Reel)
  RFKZ06D01K----------(0.6mm 100g Reel)
  RFKZ10D01K----------(1.0mm 100g Reel)

Note

*** Ingredient: tin (Sn), 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%**

3. Service Navigation

3.1. Service Information

This service manual contains technical information which will allow service personnel's to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

1) This service manual does not contain the following information, because of the impossibility of sevicing at component level.

* Schematic Diagram, Block Diagram and P.C.B. layout of RAM/Digital P.C.B. Module.
* Parts List for individual parts of RAM/Digital P.C.B. Module.
* Exploded View and Parts List for individual parts of RAM/Digital P.C.B. Module.

2) The following category are recycle module part. Please send them to Central Repair Center.

* RAM/Digital P.C.B. Module
(EH55EC: RFKNEH55EC, EH55EP: RFKNEH55EP, EH56EG: RFKNEH56EG)

3.2. Caution for DivX

Please will always pass the customer "Warning for Customers Who Use the DivX Video-on-Demand content." with the product and get it when you unavoidably exchange EEPROM or P.C.B. including EEPROM (When the product is exchanged, it is the same.).
You must use print attached to service part (EEPROM or P.C.B. including EEPROM) or must use copy of print below as "Warning for Customers who use the DivX Video-on-Demand content."
Information needed without fail for the customer for whom it is used continuing DivX Video-on-Demand Service to "Manual for the customer" is recorded.

Appendix:

* Parts that memorize user's information are only EEPROM.
* The registration of Registration Code is possible for half a year up to 6 recorders up to 10 recorders a year. Replacement of EEPROM or P.C.B. including EEPROM spends one of this.

Registration Code is memorized in EEPROM (RFKFxxxxxx).
Model without VHS: Main P.C.B.
Model with VHS: Digital I/F P.C.B. (Power & DVD I/F/P.C.B.)
If exchange above P.C.B. or EEPROM, new registration Code differ from previous Registration Code will be generated.
In this case if your customer uses DivX Video-on-Demand service, he/she will no longer be able to play any content that he/she purchased under that same registration code.
Therefore your customer will need to obtain and register the new registration code.

*Copy this page and cut on the dotted line and give the lower half to your customer.

Warning for Customers who use the DivX Video-on-Demand content.

1. The registration code has been changed for the repair of the product or the product exchange.
2. Obtain and register a new registration code, otherwise you will no longer be able to play DivX Video-on-Demand content.
3. Follow the procedure on the DivX Video-on-Demand web site to register at http://vod.divx.com/
   * If you do not use the DivX Video-on-Demand content, please ignore this warning.

4. Specifications

Power supply	AC220-240 V, 50 Hz
Power consumption	Approx. 31 W
Power consumption in standby mode	Approx. 2 W (Power Save mode)
Recording system	DVD-RAM: DVD Video Recording format DVD-R: DVD-Video format DVD-R DL (Dual Layer): DVD-Video format DVD-RW: DVD-Video format +R +R DL (Double Layer) +RW
Optical pick-up	System with 1 lens, 2 integration units (662 nm wavelength for DVDs, 780 nm wavelength for CDs)
Recordable discs	DVD-RAM
	Ver.2.0 Ver.2.1/3X-SPEED DVD-RAM Revision 1.0 Ver.2.2/5X-SPEED DVD-RAM Revision 2.0
	DVD-R
	for General Ver.2.0 for General Ver.2.0/4X-SPEED DVD-R Revision 1.0 for General Ver.2.x/8X-SPEED DVD-R Revision 3.0 for General Ver.2.x/16X-SPEED DVD-R Revision 6.0 for DL Ver.3.0 for DL Ver.3.x/4X-SPEED DVD-R for DL Revision 1.0
	DVD-RW
	Ver.1.1 Ver.1.x/2X-SPEED DVD-RW Revision 1.0 Ver.1.x/4X-SPEED DVD-RW Revision. 2.0 Ver.1.x/6X-SPEED DVD-RW Revision 3.0
	+R
	Ver.1.0 Ver.1.1 Ver.1.2 Ver.1.3 for DL Ver.1.0
	+RW
	Ver.1.1 Ver.1.2/4X-SPEED
Internal HDD Capacity	160GB
Quick Start for Recording & EPG Display: EH55EC, EH56EG (Quick Start: ON)	1 Sec. Quick Start for Recording & EPG Display* *From the power on, recording starts in about 1 second after the REC button is pressed. If the GUIDE button is pressed while the unit is off, the Electronic Program Guide (EPG) displays in less than 1 second. (Quick Start Mode)
Quick Start for Recording: EH55EP (Quick Start: ON)	1 Sec. Quick Start for Recording on DVD-RAM and HDD* *From the power off state, recording on DVD-RAM and HDD starts about 1 second after first pressing the power button and then sequentially pressing the REC button (Quick Start Mode).
Recording time	Max. 8 hours (using 4.7 GB disc) XP: Approx. 1 hour SP: Approx. 2 hours LP: Approx. 4 hours EP: Approx. 6 hours/8 hours Max. Approx. 284 hours with 160GB HDD (EP 8H mode)
Region number	Region No.2
Playable discs	DVD-RAM: DVD Video Recording format DVD-R: DVD-Video format, MP3, JPEG, DivX DVD-R DL (Dual Layer): DVD-Video format DVD-RW: DVD-Video format, DVD Video Recording format +R +R DL (Double Layer) +RW DVD-Video DVD-Audio CD-Audio (CD-DA) Video CD CD-R/CD-RW (CD-DA, Video CD, SVCD, MP3, JPEG, DivX formatted discs) SVCD

Compression Method *1 Total number of recognizable file including MP3, JPEG, DivX and other type of files is 4000.	DVD (DivX), CD (DivX)	
	DivX 3.11, 4.x, 5.x GMC (Global Motion Compensation) is not supported.	
	DVD (DivX), CD (DivX) Common Items	
	Maximum number of folders: 300 Recognizable folders per disc on this unit (including the root folder) Maximum number of DivX files: 200 Recognizable DivX files per disc on this unit *1	
	DVD (MP3), CD (MP3)	
	Format : ISO9660 level1 or 2 (except for extended formats), Joliet Compatible compression rate : 32kbps ~ 320kbps Compatible sampling rate : 16kHz, 22.05kHz, 24kHz, 32kHz, 44.1kHz, 48kHz This unit is not compatible with ID3 tags.	
	DVD (JPEG), CD (JPEG)	
	Format : ISO9660 level1 or 2 (except for extended formats), Joliet Compatible pixels : between 34 × 34 and 6144 × 4096 pixels Sub Sampling 4:2:2 or 4:2:0 This unit is not compatible with MOTION JPEG.	
	DVD (MP3), CD (MP3), DVD (JPEG), CD (JPEG) Common Items	
	Maximum number of folders : 300 Recognizable folders per disc on this unit (including the root folder) Maximum number of MP3 files : 3000 Recognizable MP3 files per disc on this unit *1 Maximum number of JPEG files : 3000 Recognizable JPEG files per disc on this unit *1 This unit is compatible with multi-session. This unit is not compatible with packet writing.	
	SVCD	
	Format: IEC62107 This unit is not compatible with "Chaoji VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107.	
Video system		
TV system	PAL: 625 lines, 50 fields SECAM: 625 lines, 50 fields (input only) NTSC: 525 lines, 60 fields	
Recording system	MPEG2 (Hybrid VBR)	
Video Input	Video In: (SECAM/PAL /NTSC)	AV1/AV2(21pin) x 2, AV3/AV4(pin jack) x 2 1.0Vp-p ; 75Ω
	S-Video In: (SECAM/PAL/NTSC)	AV2(21pin) x 1, AV3/AV4(S connector) x 2 Y:1.0Vp-p ; 75Ω, C:0.3Vp-p ; 75Ω
	RGB In (PAL)	AV2(21pin) x 1, 0.7Vp-p; 75Ω
Video Output	Video Out: (PAL/NTSC)	AV1/AV2 (21pin) x 2, LINE (pin jack) x 1, 1.0Vp-p ; 75Ω
	S-Video Out: (PAL/NTSC)	AV1 (21pin) x 1, S connector x 1 Y:1.0Vp-p ; 75Ω, C:0.3Vp-p ; 75Ω
	RGB Out: (PAL/NTSC)	AV1 (21pin) x 1, 0.7Vp-p ; 75Ω
	Component video out: (NTSC 480P/480I) (PAL 576P/576I)	Y: 1.0Vp-p ; 75Ω (pin jack) P_B: 0.7Vp-p ; 75Ω (pin jack) P_R: 0.7Vp-p ; 75Ω (pin jack)

Antenna reception system	EH55EC, EH56EG	
	CCIR (PAL-BGH) (SECAM-BG)	VHF: CH E2 - CH E12, CH A - CH H2 (For Italy) UHF: CH 21 - CH 69 CATV: CH S01 - CH S05(S1-S3), CH S1 - CH S20(M1-U10), CH S21 - CH S41
	France (SECAM-L,L') EH55EC only	VHF: CH 2 - CH 10 UHF: CH 21 - CH 69 CATV: CH B - CH Q (100.5 - 299.5MHz), CH S21 - CH S41 (299.5 - 467.25MHz)
	EH55EP	
	OIRT (PAL-DK) (SECAM-DKK1)	VHF: CH R1 - CH R12 UHF: CH 21 - CH 69 CATV: CH 44MHz - 470MHz
	CCIR (PAL-BGH) (SECAM-BG)	VHF: CH E2 - CH E12 UHF: CH E21 - CH E69 CATV: CH S01 - CH S05, CH M1 - CH M10, CH U1 - CH U10, CH S21 - CH S41
	South Africa(PAL-I)	VHF: CH 4 - CH 13 UHF: CH 21 - CH 68
RF Converter Output	Not provided	
DV Input	IEEE 1394 Standard, 4pin	
SD System		
SD Card Slot	SD memory card slot: 1pc	
Still Picture (JPEG, TIFF)		
Compatible Media	SD memory card */Multi Media Card *Includes miniSD™ cards. (A miniSD™ card adapter needs to be inserted.)	
Format	FAT12, FAT16	
Image file format	JPEG conforming to DCF (Design rule for Camera File system) (sub sampling: 4:2:2 or 4:2:0) TIFF (Uncompressed RGB chunky) DPOF Compatible	
Number of pixels	34 x 34 to 6144 x 4096	
Thawing time	Approx. 3sec (6M pixels, JPEG)	
SD Video (MPEG2)		
Compatible Media	SD memory card */Multi Media Card *Includes miniSD™ cards. (A miniSD™ card adapter needs to be inserted.)	
Codec	MPEG2 (SD-Video Entertainment Video Profile)	
File format	SD-Video format conforming	
Video Recording conversion and transfer is possible from card to HDD or DVD-RAM disc. After Video Recording conversion and transfer to HDD or DVD-RAM disc, the playback is possible.		
Audio system		
Recording system	Dolby Digital 2ch, Linear PCM (XP mode)	
Audio Input	AV1/AV2 (21pin) x 2, AV3/AV4 (pin jack) x 2 Standard input: 0.5 Vrms Full scale: 2.0 Vrms at 1KHz Input impedance: More than 10KΩ	
Audio Output	AV1/AV2(21pin) x 2, LINE(pin jack) x 2 Standard output: 0.5 Vrms Full scale: 2.0 Vrms at 1KHz Output impedance: Less than 1.0KΩ	
Digital Output	Digital Audio Optical Output Connector (PCM,Dolby Digital,DTS,MPEG)	
Dimensions	Approx. 430 (W) x 58 (H) x 329 (D) mm	
Mass	Approx. 4.2 kg	
Operating temperature	5˚C - 40˚C	
Operating humidity range	10 %-80 % RH (no condensation)	
LASER Specification (Class 1 LASER Product)		
Wave length	780 nm(CDs), 662 nm(DVDs)	
Laser power	No hazardous radiation is emitted with the safety protection.	
Solder	These models use lead free solder (PbF).	

Notes : Mass and dimensions are approximate.
Specifications are subject to change without notice.

5. New Feature

5.1. About DivX

5.1.1. General

DivX is a new video compressing format that is applied MPEG4 technology to improve image quality and the compressibility, and it is developed by the DivXNetworks, Inc., Video file of high resolution and the high picture quality can be made though it is a high compressibility.
DivX codec is necessary for converting video to DivX file and .playback files made.

5.1.2. Operating Instructions about DivX Video-on-Demand Content

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit.
Follow the on line instructions for purchasing DivX VOD content to enter unit's registration code and register unit. Visit www.divx.com/vod for more information.
Display unit's registration code.

- **We recommend that you make a note of this code for future reference.**
- **After playing DivX VOD content for first time, another registration code is then displayed in "DivX Registration". Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play content on this unit, you will no longer be able to play any content that you purchased using previous code.**
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. ("Authorization Error" is displayed.)

Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times.
When you play this content, remaining number of plays is displayed. You cannot play this content when number of remaining plays is zero. ("Rental Expired" is displayed.)
When playing this content

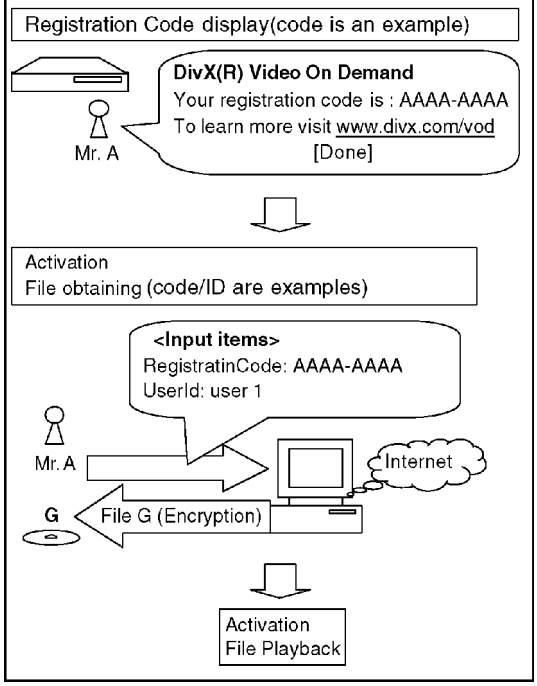
- Number of remaining plays is reduced by one if
  -you press [POWER].
  -you press [STOP].
  -you press [◀◀ SKIP], [◀◀ SLOW/SEARCH] or [▶▶ SLOW/SEARCH] etc. and arrive at another content or start of content being played.
  -scheduled recording starts on HDD.
  -you press [DRIVE SELECT] to change drive.

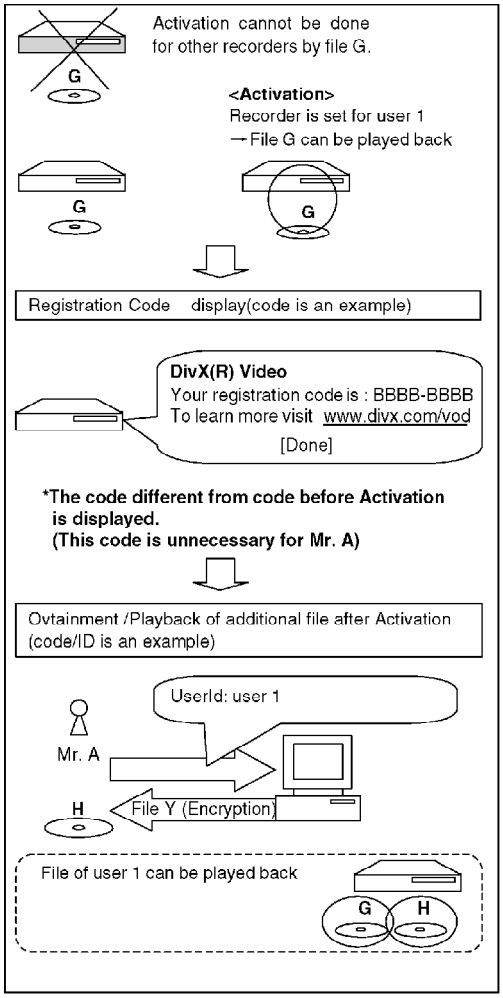
* Resume functions do not work.

Typical Playback procedure of DivX VOD (Video On Demand)

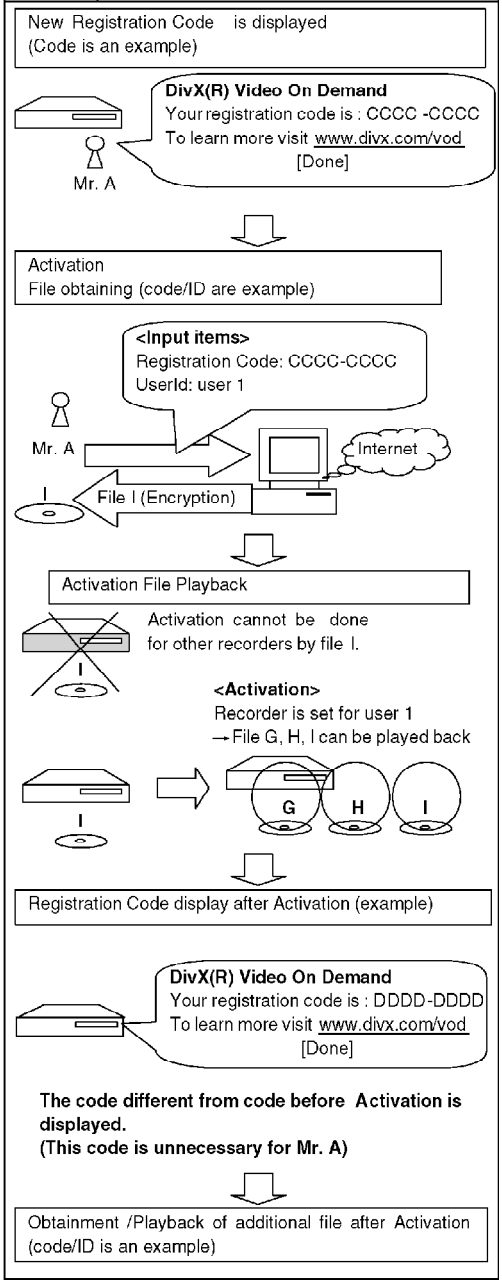
Case 1	When DivX VOD is used newly.
Case 2	When EEPROM or P.C.B. including EEPROM was replaced for repairing.
Case 3	When recorder was exchanged to another recorder for repairing.
Case 4	When customer own second recorder
Case 5	When owner of recorder was changed to another.

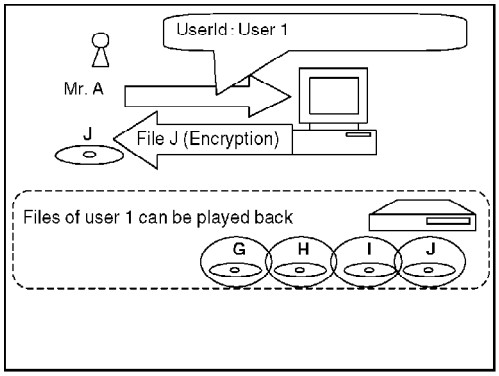
Case 1. When DivX VOD is used newly.





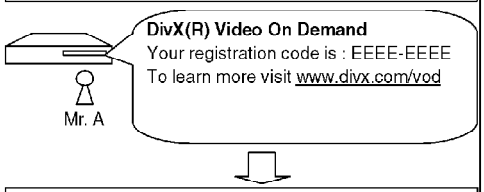
Case 2	When EEPROM or P.C.B. including EEPROM was replaced for repairing.
Case 3	When recorder was exchanged to another recorder for repairing.



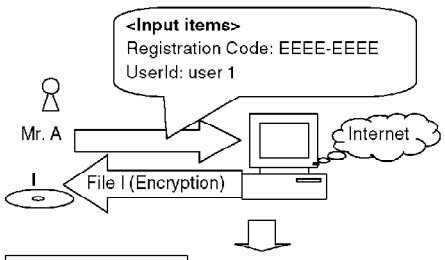


Case 4 | **When customer own second recorder**

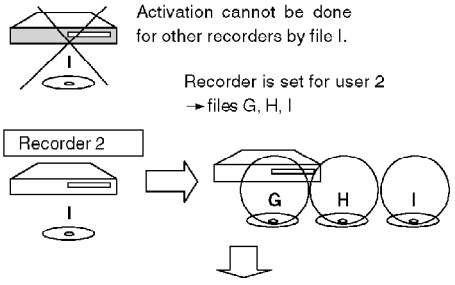
Registration Code display of sec ›nd recorder (code is an example)



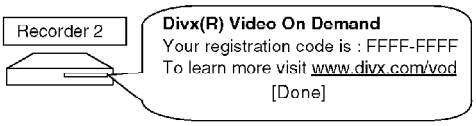
Activation
File obtaining (code/ID are example)



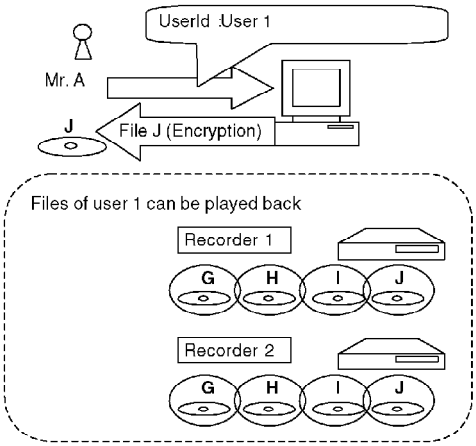
Activation
File Playback



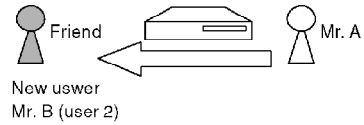
Registration Code display after Activation (example)



Obtainment /Playback of additional file after Activation (code/ID is an example)



Case 5 | **When owner of recorder was changed to another.**

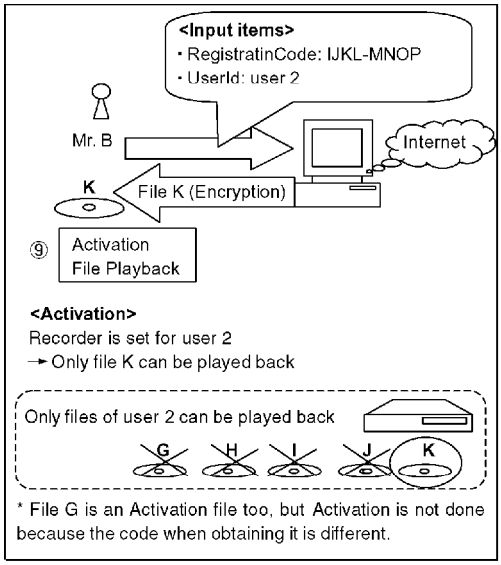


It is necessary to update information on the recorder

⑦ Activation

Registration Code is displayed

⑧ Activation
File obtaining (code/ID are example)



File kind

(There are two kind of Activation files as follows too.)

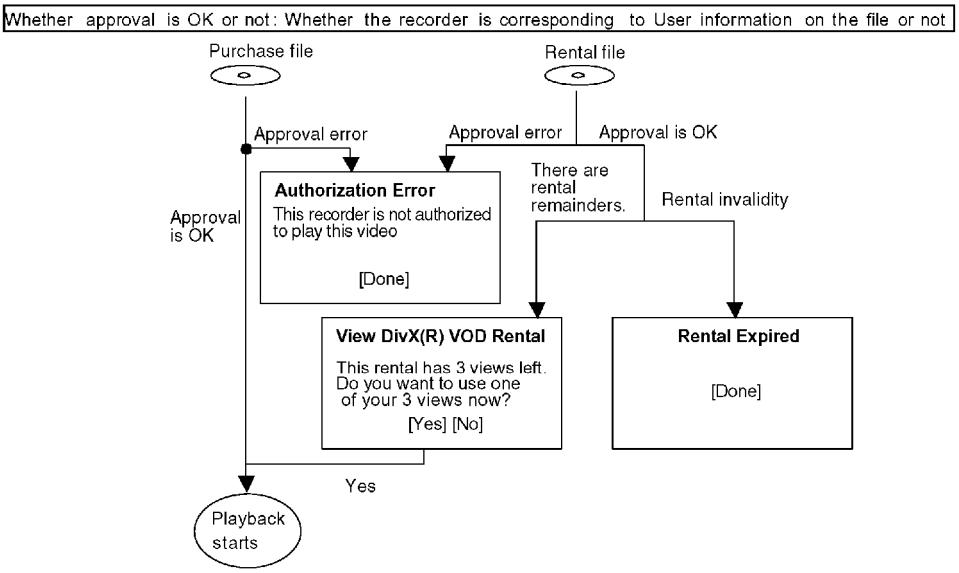
· Rental : There is a playback limitation

· Purchase : Unrestricted

Also there is next file as DRM files besides the above-mentioned.

·**Base:** It is not necessary to approve though the contents is being encoded. → If it is recorder/player for DRM, any can play back. (It is the same as usual DivX file when seeing from user.)

Screen shift (Error display)


Whether approval is OK or not : Whether the recorder is corresponding to User information on the file or not
Purchase file
Rental file
Approval error
Approval error
Approval is OK
There are rental remainders.
Rental invalidity
Approval is OK
Authorization Error
This recorder is not authorized to play this video
[Done]
View DivX(R) VOD Rental
This rental has 3 views left. Do you want to use one of your 3 views now?
[Yes] [No]
Rental Expired
[Done]
Yes
Playback starts

5.1.3. About DivX DRM

Divx file includes file to which DRM(Digital Right Management) is applied and file not applied.
This item is a content that relates only in treating file to which DRM is applied.

1. Registration Code display function

2. User's registration and approval function

3. Rental management function

1) Registration Code display function

Registration Code is alphanumeric character sequence 8bytes inputted as recorder information, in case a use purchases or rent a DivX DRM file in a network.
Registration code is a character sequence generated at random, and differs in each recorder.

Moreover, Registration code is updated by new user authentication ever if same recorder.

2) User's registration and approval function

- **Only one user can register for one recorder. If user's registration is not done with the recorder, DivX file cannot be played back.**
- **User's registration is performed only when a DivX DRM file is first chosen by recorder**
- **DivX DRM file that can perform user's registration is only a file that is registered Registration Code and purchased or rented.**
- **User authentication is performed whenever DivX DRM file is played back.**
  Error message is displayed when failing in user's registration and approval.

3) Rental management function

There are purchase file without registration of number of playback and rental files with registration of number of playback as Divx file. Number of playback of rental file is counted by the recorder.

When rental file is played, remaining number of times that can be played back will be shown to users, recorder requests users to input yes or no.

Following specifications have been installed for the rental files in the purpose to clarify the count condition of number of times of playback.

- **Conditions on counting number of times of play.**

1. **When a file was opened successfully. (At the time of playback start)**
2. **When you have done review operation from the start. (Skip to file head)**

   - **At this time, remaining number of times that can be played back and confirmation message [Do you play really?] are displayed.**
   - **When the playback point has been skipped to the top of title, number of playback is not counted if the top of title was not recognized.**
   - **Even if the power failure occurs after start of playback of rental file, number of times of playback counted at start of the playback is held as it is. (Though playback stops by power failure, the number of times of playback is not counted.)**

When it has reached head of title, the playback is ended, and screen becomes DivX menu (There is no resume) and then cursor is located on title that has been played back.
Then if the same file was continuously played back, it begins to playback from the file head.

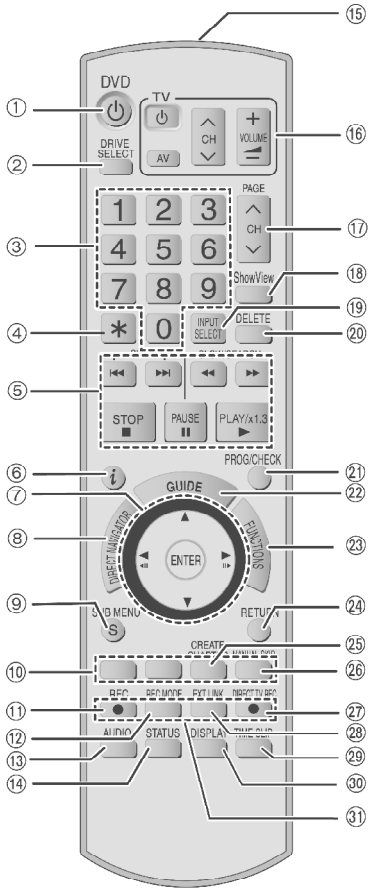
Note:
Above mentioned stored user information and number of times of playback are not erased by update of firmware or by initialization by test mode.

6. Location of Controls and Components

Followings are the Location of Controls and Components for DMR-EH55EC and DMR-EH56EG as a sample.
For other model, refer to each Operation Instructions.

Remote control

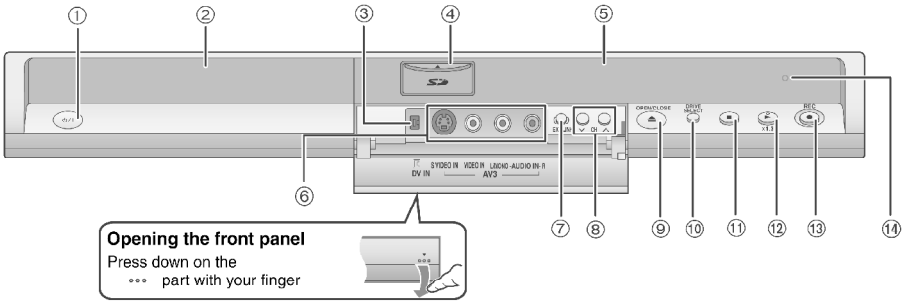
Instructions for operations are generally described using the remote control.



① Turn the unit on
② Select drive (HDD, DVD or SD)
③ Select channels and title numbers, etc./Enter numbers
④ Cancel
⑤ Basic operations for recording and play
⑥ Show programme information in the GUIDE Plus+ system
⑦ Selection/Enter, Frame-by-frame
⑧ Show Top menu/Direct Navigator
⑨ Show sub menu
⑩ Colour buttons for switching between Video/Picture and Video/Playlists, selecting character type when entering text, manual tuning settings and GUIDE Plus+ operations
⑪ Start recording
⑫ Change recording mode
⑬ Select audio
⑭ Show status messages
⑮ Transmit the remote control signal
⑯ Television operations
⑰ Channel select/Change pages in the GUIDE Plus+ system
⑱ Show SHOWVIEW screen
⑲ Input select (AV1, AV2, AV3, AV4 or DV)
⑳ Delete items
㉑ Show timer recording programme screen
㉒ Show the GUIDE Plus+ screen
㉓ Show FUNCTIONS window
㉔ Return to previous screen
㉕ Create chapter
㉖ Skip 30 seconds forward
㉗ Direct TV recording
㉘ Linked timer recordings with external equipment
㉙ Skip the specified time
㉚ Show on-screen menu
㉛ Recording functions

Note
- Buttons such as the [● REC] button do not protrude as much as other buttons to stop them from being pressed accidentally.
- If you press [EXT LINK] accidentally, the unit turns off and switches to recording standby mode. Press [EXT LINK] again to cancel recording standby.
- The word "button" is not used in these operating instructions so "Press the [ENTER] button." is shown as "Press [ENTER]."
- You can use this remote control to operate your television if you set the television manufacturer code.

Main unit



① **Standby/on switch (⏻/I)**
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
② Disc tray
③ Connection for digital video (DV) camcorder
④ SD card slot (➡ below)
⑤ Display (➡ below)
⑥ Connection for camcorder etc.
⑦ Linked timer recordings with external equipment
⑧ Channel select
⑨ Open/close disc tray
⑩ Select drive
Drive changes each time you press [DRIVE SELECT].
⑪ Stop
⑫ Start play
⑬ Start recording/Specify a time to stop recording
⑭ Remote control signal sensor

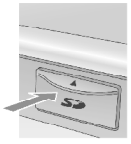
Rear panel terminals

Inserting, Removing the SD card

When the card indicator ("SD") on the unit's display is flashing, the card is being read from or written to. Do not turn off the unit or remove the card. Such action may result in malfunction or loss of the card's contents.
- **Inserting foreign objects can cause a malfunction.**
- You can use SD Memory Cards with capacities from 8 MB to 2 GB

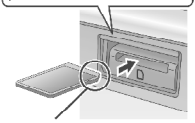
Opening the cover

Press the protruding part to open the cover.



Inserting the card

Press on the centre of the card until it clicks into place.

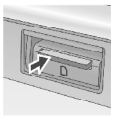


Insert the card label up with the cut-off corner on the right.
(Do not forget to close the cover. ➡ right)

If you are using a miniSD™ card, insert it into the miniSD™ card adaptor that comes with the card.
Insert and remove this adaptor from the unit.

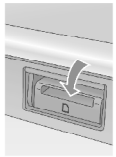
Removing the card

❶ Press on the centre of the card.
❷ Pull it straight out.



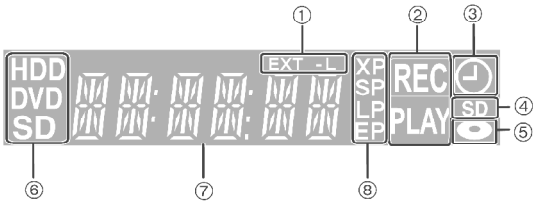
Closing the cover

Press down.

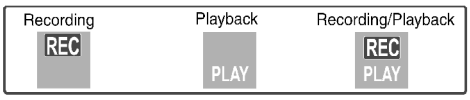


Automatic drive select function
- If you insert an SD card while the unit is stopped, the "SD Card" screen is displayed. Select an item and press [ENTER] to switch to the SD drive
If you remove an SD card, the HDD drive is automatically selected.

The unit's display



① Linked timer recordings with external equipment indicator
②



③ Timer recording indicator
④ Lights when the SD card is inserted in the card slot.
⑤ Lights when a disc that is supported by this unit is inserted in the tray.
⑥ Lights when the HDD, DVD or SD drive is selected
⑦ Main display section
⑧ Recording mode

7. Operation Instructions

7.1. Taking out the Disc from DVD-Drive Unit when the Disc cannot be ejected by OPEN/CLOSE button

7.1.1. Forcible Disc Eject

7.1.1.1. When the power can be turned off.

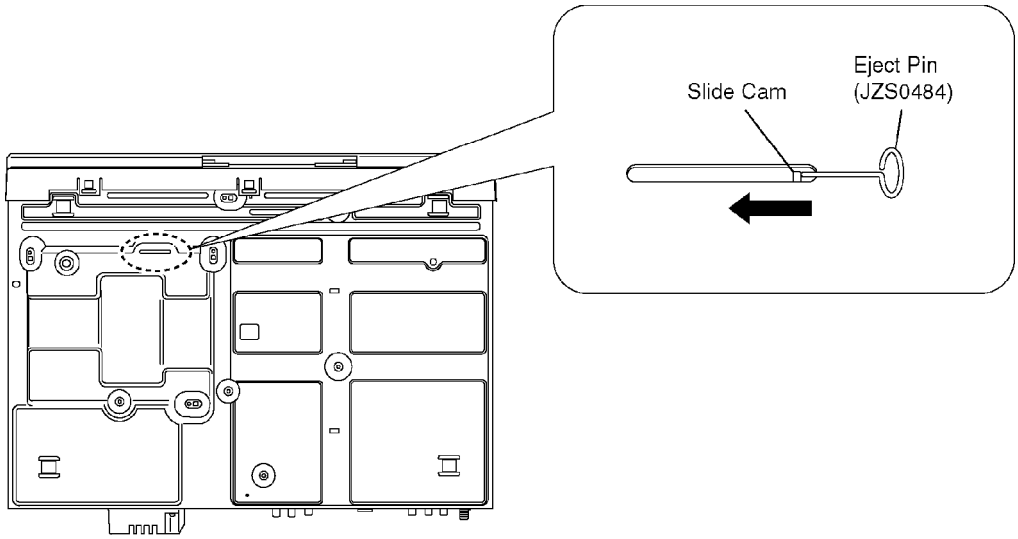
1. **Turn off the power and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.**

7.1.1.2. When the power can not be turned off.

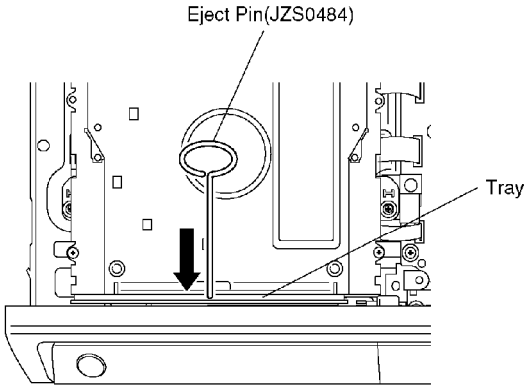
1. **Press [POWER] key on the front panel for over 10 seconds to turn off the power forcibly, and press [STOP] [CH UP] keys on the front panel simultaneously for 5 seconds.**

7.1.2. When the Forcible Disc Eject can not be done.

1. **Turn off the power and pull out AC cord.**
2. **Remove the Top Case.**
3. **Put deck so that bottom can be seen.**
4. **Slide SLIDE CAM by Eject Pin (JZJ0484) or minus screw driver (small) in the direction of arrow to eject tray slightly.**



5. **Put deck upward, and push out Tray by Eject Pin (JZS0484) or minus screw driver (small).**



8. Service Mode

8.1. Self-Diagnosis and Special Mode Setting

8.1.1. Self-Diagnosis Functions

Self-Diagnosis Function provides information for errors to service personnel by "Self-Diagnosis Display" when any error has occurred.
U, H** and F** are stored in memory and held.**
You can check latest error code by transmitting [0] [1] of Remote Controller in Service Mode.
Automatic Display on FL will be cancelled when the power is turned off or AC input is turned off during self-diagnosis display is ON.

Error Code	Diagnosis contents	Description	Monitor Display	Automatic Fl
U30	Remote control code error	Display appears when main unit and remote controller codes are not matched.	No display	DVD * "*" is remote c code of the ma Display for 5 se
U59	Abnormal inner temperature detected	Display appears when the drive temperature exceeds 70°C. The power is turned off forcibly. For 30 minutes after this, all key entries are disabled. (Fan motor operates at the highest speed for the first 5 minutes. For the remaining 25 minutes, fan motor is also stopped.) The event is saved in memory as well.	No display	U59 "U59 is display minutes.
U61	The unit is carrying out its recovery process. (with no disc in the disc tray)	・The unit detected an error while recording or playing with no disc in the disc tray. The unit is carrying out its recovery process. This process restores the unit to normal operation. The unit is not broken. Wait until the message disappears.	No display	U61

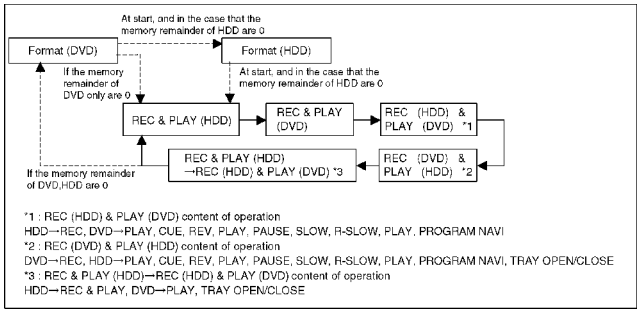
Error Code	Diagnosis contents	Description	Monitor Display	Automatic FI
U88	**The unit is carrying out its recovery process.** (with a disc in the disc tray)	・The unit detected an error while recording or playing with a disc in the disc tray. The unit is carrying out its recovery process. This process restores the unit to normal operation. The unit is not broken. Wait until the message disappears.	**No display**	U88
U99	**Hang-up**	**Displayed when communication error has occurred between Main microprocessor and Timer microprocessor.**	**No display**	U99 **Displayed is lef [POWER] key is**
H19	**Inoperative fan motor**	**When inoperative fan motor is detected after powered on, the power is turned off automatically. The event is saved in memory.**	**No display**	**No display**
F00	**No error information**	**Initial setting for error code in memory (Error code Initialization is possible with error code initialization and main unit initialization.)**	**No display**	**No display**
F58	**Drive hardware error**	**When drive unit error is detected, the event is saved in memory.**	**No display**	**No display**
F34	**Initialization error when main microprocessor is started up for program recording**	**When initialization error is detected after starting up main microprocessor for program recording, the power is turned off automatically. The event is saved in memory.**	**No display**	**No display**
UNSUPPORT	**Unsupported disc error**	***An unsupported format disc was played, although the drive starts normally. *The data format is not supported, although the media type is supported. *Exceptionally in case of the disc is dirty.**	**"This disc is incompatible."**	UNSUP ↓ PORT **Display for 5 se**
NO READ	**Disc read error**	***A disc is flawed or dirty. *A poor quality failed to start. *The track information could not be read.**	**"Cannot read. Please check the disc."**	NOREAD
HARD ERR	**Drive error**	**The drive detected a hard error.**	**"DVD drive error."**	**Display for 5 se** HARD ↓ ERR

Error Code	Diagnosis contents	Description	Monitor Display	Automatic FI
SELF CHECK	Restoration operation	Since the power cord fell out during a power failure or operation, it is under restoration operation. *It will OK, if a display disappears automatically. If a display does not disappear, there is the possibility that defective Digital P.C.B. / RAM drive.	No display	SELF ↓ CHECK
PLEASE WAIT	Unit is in termination process	Unit is in termination process now. "BYE" is displayed and power will be turned off. In case "Quick Start" of setup menu is ON, it is displayed in restoration operation for AC off.	No display	PLEASE ↓ WAIT
UNFORMAT	Unformatted disc error	You have inserted an unformatted DVD-RAM or DVD-RW that is unformatted or recorded on other equipment.	Format This disc is not formatted properly. Format the disc in DISK MANAGEMENT?	UNFOR ↓ MAT
HDD ERROR	[HDD ERR] is displayed when start up of HDD was failed. (Except error of setting of Power on Stand-by)	a) When normal start up was failed. b) When start up at HDD boot was failed. c) When start up from state of P-OFF was / failed. d) When start up from state of HDD SLEEP / was failed. [HDD ERR] is displayed when above each start up of HDD was failed. *In case b), tray opens automatically and [HDDERR] is displayed until version up disc is inserted.	No display	HDDERR
HDD NG	Power on Stand-by setting error	[HDD NG] is displayed when power on Stand-by setting of HDD is NG or when HDD which power on Stand-by is not set to is used. Please try to replace HDD with junine HDD as service parts.	No display	HDD NG

8.1.2. Special Modes Setting

Item		FL display	Key opera
Mode name	Description		Front K
TEST Mode	*All the main unit's parameters (include tuner) are initialized.	TM AV1	Press [STOP], [(and [OPEN/CLO simultaneously seconds when p off.
Rating password	The audiovisual level setting password is initialized to “Level 8”.	INIT	Open the tray, a [REC] and [PLA simultaneously seconds.
Service Mode	Setting every kind of modes for servicing. *Details are described in “8.1.3. Service Mode at a glance”.	SERV	When the power press [CH UP], [CLOSE] and [RE simultaneously seconds.
Forced disc eject	Removing a disc that cannot be ejected. The tray will open and unit will shift to P-off mode. *When Timer REC is ON or EXT-LINK is ON, execute " Forced disc eject " after releasing Timer REC or EXT-LINK. *This command is not effective during "Child lock" is ON. While Demonstration Lock is being set, this Forced disc eject function is not accepted. If this command was executed while TIMER REC is being set, TIMER REC setting will be kept.	The display before execution leaves. ******	When the power press [STOP] an keys simultaneo seconds.
Child lock/unlock	Set or release “Child Lock”.	X HOLD	Press [ENTER] a [RETURN] by re controller simult until [X-HOLD] is displayed.
NTSC/PAL system select	To switch PAL/NTSC altemately.	The display before execution leaves. ******	While the power mode), press [S [OPEN/CLOSE] simultaneously seconds.

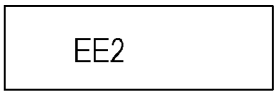
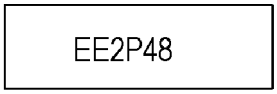
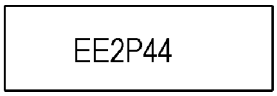
Item		FL display	Key opera
Mode name	Description		Front K
Forced power-off	When the power button is not effective while power is ON, turn off the power forcibly. *When Timer REC is ON or EXT-LINK is ON, execute “Forced Power-off” after releasing Timer REC or EXT-LINK.	Display in P-off mode.	Press [Power] k than 10 seconds
Aging	Perform sequence of modes as * Aging Description shown below continually. Caution: All programs in DVD-RAM disc will be deleted because Formatting is done once in Aging process.	Display following the then mode.	When the power press [STOP], [F and [OPEN/CLO simultaneously seconds and les seconds. NOTE1: If Unit has not tu Aging mode by shown above, ex TEST MODE onc execute operatic above. (*All the main un parameters inclu are initialized by mode.) NOTE2: If the unit has hu because of pres for over 10 seco turn off the pow execute this cor *When releasing mode, press [PC

Item		FL display	Key opera
Mode name	Description		Front K
	Aging Contents (Example):  		
Demonstration lock/unlock	**Ejection of the disc is prohibited. The lock setting is effective until unlocking the tray and not released by “Main unit initialization” of service mode.**	***When lock the tray.** LOCK **“LOCK” is displayed for 3 seconds.**	**When the power press [STOP] an [POWER] keys simultaneously seconds.**
		***When unlock the tray.** UNLOCK **“UNLOCK” is displayed for 3 seconds.**	**When the power press [STOP] an [POWER] keys simultaneously seconds.**
		***When press OPEN/ CLOSE key while the tray being locked.** LOCK **Display “LOCK” for 3 seconds.**	**Press [OPEN/CL while the tray be locked.**
ATP re-execution	**Re-execute ATP.**	**Display at ATP executing.** ******	**When the power mode), press [C [CH DOWN] simultaneously seconds.**
Progressive initialization	**The progressive setting is initialized to Interlace.**	**The display before execution leaves.** ******	**When the power mode), press [S [PLAY] simultan 5 seconds.**

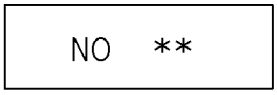
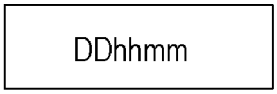
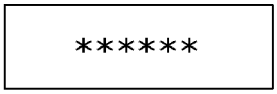
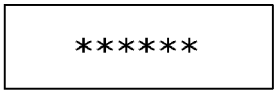
8.1.3. Service Modes at a glance

Service mode setting: While the power is off, press REC, CH UP and OPEN / CLOSE simultaneously for five seconds.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Release Items	Item of Service Mode executing is cancelled.	SERV	Press [0] [0] or [service mode.
Error Code Display	Last Error Code of U/H/F held by Timer is displayed on FL. *Details are described in "8.1.1. Self-Diagnosis Functions".	♣□□ *♣ shows U/H/F. □□ shows number. If any error history dose not exist, [F00] is displayed.	Press [0] [1] in s mode
ROM Version Display	1. Region code (displayed for 5 sec.) 2. Main firm version (displayed for 5 sec.) 3. Timer firm version (displayed for 5 sec.) 4. Drive firm version (displayed for 5 sec.) 5. ROM correction version (left displayed)	1. NO * 2. ****** 3. ****** 4. **** 5. *** " * " are version displays.	Press [0] [2] in s mode
White Picture Output	White picture is output as component Output from AV Decoder. *White picture (Saturation rate : 100%) *It is enable to switch Interlace/ Progressive by "I/P switch: [1] [4]"	*Initial mode is "Interlace". WHIT I	Press [1] [1] in s mode.
		Switch Interlace/ Progressive WHIT	Press [1] [4] in W Picture Output r *I/P are switched alternately.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Magenta Picture Output	Magenta picture is output with Component Output from AV Decoder. *Magenta picture (Saturation rate: 100%) *It is enable to switch Interlace/ Progressive by "I/P switch: [1] [4]"	*Initial mode is "Interlace". 	Press [1] [2] in s mode.
		Switch Interlace/ Progressive 	Press [1] [4] in M Picture Output m *I/P are switched alternately.
RTSC Return in XP (A & V)	AV1 input signal is encoded (XP), decoded (XP) and output decoded signal to external without DISC recording and DISC playback.	Initial mode: EE2/ Interlace/ XP/ Audio 48kHz 	Press [1] [3] in s mode.
		Switch Interlace/ Progressive 	Press [1] [4] in F Return XP mode *I/P are switched alternately.
		Audio 44.1 kHz/ 48 kHz Switch 	Press [2] [4] in F Return XP mode *48 kHz / 44.1 kH switched alterna
I/P Switch	Switch Interlace and Progressive in EE mode. *Initial setting is "Interlace". *This command is effective during executing "White Picture Output", "Magenta Picture Output" and "RTSC Return in XP (A & V)" modes.	Initial mode is Interlace Switch Interlace/ Progressive 	Press [1] [4] in I/ mode. *I/P are switched alternately.
Audio Mute (XTMUTE)	Check whether mute is applied normally by the timer microprocessor.		Press [2] [1] in s mode.
Audio Mute (XDMUTE)	Check whether mute is applied normally by the Digital P.C.B..		Press [2] [2] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Audio Pattern Output	The audio pattern stored in the internal memory is output (Lch: 1kHz/-18dB) (Rch: 400Hz/-18dB) *Audio sound clock switching operation of DAC can be confirmed by sub command [2] [4].	Initial mode (Audio 48kHz) AU 48	Press [2] [3] in s mode.
		Audio 44.1kHz/48kHz switching AU 44	Press [2] [4] in A Pattern Output r *48 kHz / 44.1 kH switched alterna
HDD READ inspection	Perform a complete read inspection of the HDD.	When the HDD is OK HDD OK If the HDD is defective HDD□○○ □ :Judge of Forward rate. *When normal (Forward rate is 35Mbps or more, and there is no HDD error):□is Space. *When Abnormal (Forward rate is less than 35Mbps or HDD error existing):□is X. ○○ :Number of what have spent time for seeking is over 100ms. *When normal:○○ are spaces. *When Abnormal: Display Number of what have spent time for seeking over 100ms. However, if the number is more than 100, display [XX]. We judge it is normal that the number is less than 4.	Press [3] [1] in s mode. *When cancelin checking mode executing, do "f power-off". Method: Press the "POW button more tha seconds.
Laser Used Time Indiction	Check laser used time (hours) of drive.	* ● (*****) is the used time display in hour. ● Laser used time of DVD / CD in Playback/ Recording mode is counted.	Press [4] [1] in s mode.
Delete the Laser Used Time	Laser used time stored in the memory of the unit is deleted.	CLR	Press [9] [5] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
RAM Drive Last Error	RAM Drive error code display. *For details about the drive error code, refer to the Service Manual for the specific RAM Drive.	1. Error Number is displayed for 5 seconds. NO **  2. Time when the error has occurred is displayed for 5 seconds. DDhhmm  DD: Day hh: Hour mm: Minute 3. Last Drive Error (1/2) is displayed for 5 seconds. ******  4. Last Drive Error (2/2) is displayed for 5 seconds. ****** 5. Error occurring Disc type is displayed for 5 seconds. ******  6. Disc Maker ID is displayed for 5 seconds. ****** 7. Factor of Drive Error occurring is left displayed ******	Press [4] [2] in s mode. When “INFO**** being displayed error histories c displayed by pre [1] - [1] [9] In case that the cannot be identi display is black

<table>
<tr><th colspan="2">Item</th><th rowspan="2">FL display</th><th>Key opera</th></tr>
<tr><th>Mode name</th><th>Description</th><th>(Remote contr</th></tr>
<tr><td>Delete the Last Drive Error</td><td>Delete the Last Drive Error information stored on the DVD RAM-Drive.</td><td>CLR</td><td>Press [9] [6] in s mode.</td></tr>
<tr><td>Laser power confirmation</td><td>Drive state is judged based on difference between laser power value at shipping and present laser power value.</td><td>CHK *
* is judgment result
<table><tr><th>*</th><th>Power value difference</th><th>Evaluation</th></tr><tr><td>0</td><td>1mW or less</td><td>Very good.</td></tr><tr><td>1</td><td>2mW or less</td><td>Good.</td></tr><tr><td>2</td><td>3mW or less</td><td>Bad.</td></tr><tr><td>3</td><td>4mW or more</td><td>Very bad.</td></tr></table>
If DVD-RAM disc in not inserted, [NO DISC] is displayed.
If power value study was filed, [ERROR] is displayed.</td><td>1.
Insert DVD-
into RAM Drive in ser
(Other media are assu
correspondence.)
2. Press [4] [4].</td></tr>
<tr><td>Turn on all FL/ LEDs</td><td>All segments of FL and all LEDs are turned on.</td><td>All segments are turned on.</td><td>Press [5] [1] in s mode.</td></tr>
<tr><td>PB HIGH Signal Output</td><td>8 pin of AV 1 Jack (PB HIGH terminal) is High (approx. 11V DC).</td><td>PB HI</td><td>Press [5] [2] in s mode.</td></tr>
<tr><td>PB MIDDLE Signal Output</td><td>8 pin of AV 1 Jack (PB HIGH terminal) is Middle (approx. 5.5V DC)</td><td>PB MID</td><td>Press [5] [3] in s mode.</td></tr>
<tr><td>Front connection inspection</td><td>Press all front keys and check the connection between Main P.C.B. and Front key Switches.</td><td>0r **
(1) (2)
(1) Each time a key is pressed, segment turned on increases one by one.
(2) Total umber of keys that have been pressed.</td><td>Press [5] [4] in s mode.</td></tr>
<tr><td>Production Date Display</td><td>Display the date when the unit was produced.</td><td>YYMMDD
YY: Year
MM: Month
DD: Day</td><td>Press [6] [1] in s mode.</td></tr>
</table>

Item		FL display	Key opera
Mode name	Description		(Remote contr
Display the accumlated working time	Display the accumulated unit's working time.	****** (Indicating unit: Second)	Press [6] [4] in s mode.
Display the Error History	Display the Error History stored on the unit.	Display reason of error for 5 seconds. NO ** 01: Defect of Digital P.C.B. (AV DEC / MAIN CPU) 02: Defect of RAM Drive. 03: Defect of Disc. 04: Defect of Digital P.C.B. or Communication Error. 05: Defect of Digital P.C.B. (AV DEC / MAIN CPU) 06: Defect of HDD. Display the time when the error has occurred for 5 seconds. DDhhmm DD: Day hh: Hour mm: Minute Accumulated working time till occuring of the error is left displayed. ****** (Indicating unit: Second)	Press [6] [5] in s mode. Then press [0] [the past 19 erro are displayed.

Item		FL display	Key opera
Mode name	Description		(Remote contr
Delete the Error History	Delete Error History information stored on the unit.	CLR	Press [9] [7] in s mode.
SD card WRITE check	Delete Error History information stored on the unit.	When the WRITE check is OK. SD OK When the WRITE check is NG. SD NG *Note: The image stored in the SD card will be erased.	Insert a SD card card slot, and pr in service mode. *Insert SD card v power is off. *Check for [CAR display on the F and go on the pr
AV4(V)/AV1(RGB) I/O Setting	Set input to AV4 (V) and set output to AV1 (RGB) for I/O checking	PAL 01	Press [8] [0] in s mode.
AV2(Y/C)/AV1(V) I/O Setting	Set input to AV2 (Y/C) and set output to AV1 (V) for I/O checking	PAL 02	Press [8] [1] in s mode.
AV2(V)/AV1(Y/C) I/O Setting	Set input to AV2 (V) and set output to AV1 (Y/C) for I/O checking	PAL 03	Press [8] [2] in s mode.
AV2(RGB)/AV1(V) I/O Setting	Set input to AV2 (RGB) and set output to AV1 (V) for I/O checking	PAL 04	Press [8] [3] in s mode.
P50(H) Output	Timer Microprocessor IC7501-76 output High signal for AV1-pin 10 passing through inverter (approx. 0V DC at AV1-pin 10).	When OK. P50HOK When NG. P50HNG	Press [8] [4] in s mode.

Item		FL display	Key opera
Mode name	Description		(Remote contr
P50(L) Output	Timer Microprocessor IC7501-76 output Low signal for AV1-pin 10 passing through inverter (approx. 4.4V DC at AV1-pin 10).	When OK. P50LOK When NG. P50LNG	Press [8] [5] in s mode.
Tray OPEN/ CLOSE Test	The RAM drive tray is opened and closed repeatedly.	****** "*" is number of open/ close cycle times.	Press [9] [1] in s mode *When releasing mode, press the button of Remot Controller more seconds.
Error code initialization	Initialization of the last error code held by timer (Write in F00)	CLR	Press [9] [8] in s mode.
Initialize Service	Last Drive Error, Error history and Error Codes stored on the unit are initialized to factory setting.	CLR	Press [9] [9] in s mode.
Finishing service mode	Release Service Mode.	Display in STOP (E-E) mode. ******	Press power but front panel or Re controller in ser

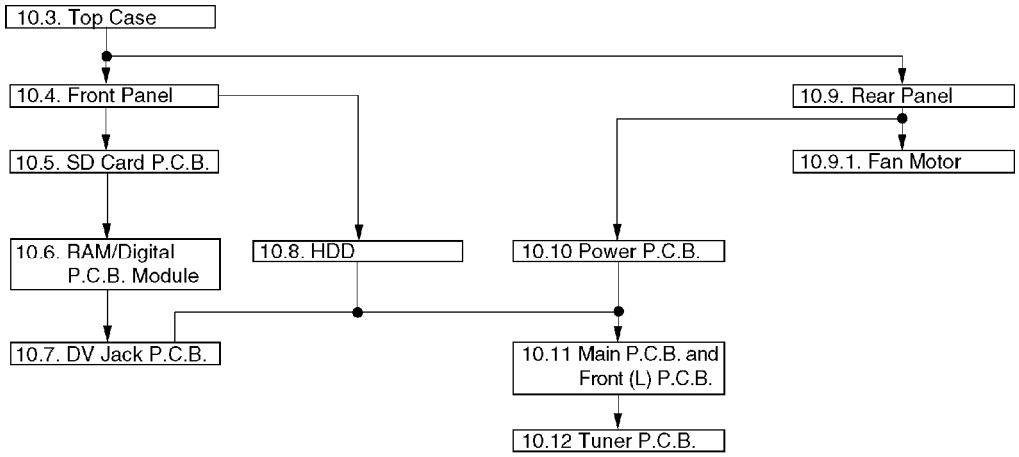
9. Service Fixture & Tools

Part Number	Description	Compatibilit
RFKZ0260	Extension Cable (MainP.C.B. - RAM/Digital P.C.B. Module/ 88 Pin)	Same as EH50 Series
RFKZ0216	Extension Cable (MainP.C.B. - Power P.C.B./ 23 Pin)	Same as E55 Series
RFKZ0366	Extension FFC (HDD - RAM/Digital P.C.B. Module/ 40 Pin)	New
RFKZ0168	Extension Cable (Power P.C.B. - Fan Motor/ 3 Pin)	Same as E50/ E55 Se
RFKZ0339	Extension Cable (MainP.C.B. - HDD / 4 Pin)	New
JZS0484	Eject Pin	Same as E50 Series
RFKZ03D01K	Lead Free Solder (0.3mm/100g Reel)	New
RFKZ06D01K	Lead Free Solder (0.6mm/100g Reel)	New
RFKZ10D01K	Lead Free Solder (1.0mm/100g Reel))	New
RFKZ0316	Solder Remover (Lead free 10W temperature Solder/180g)	New
RFKZ0328	Flux	New
RFKZ0329	Bottle of Flux	New

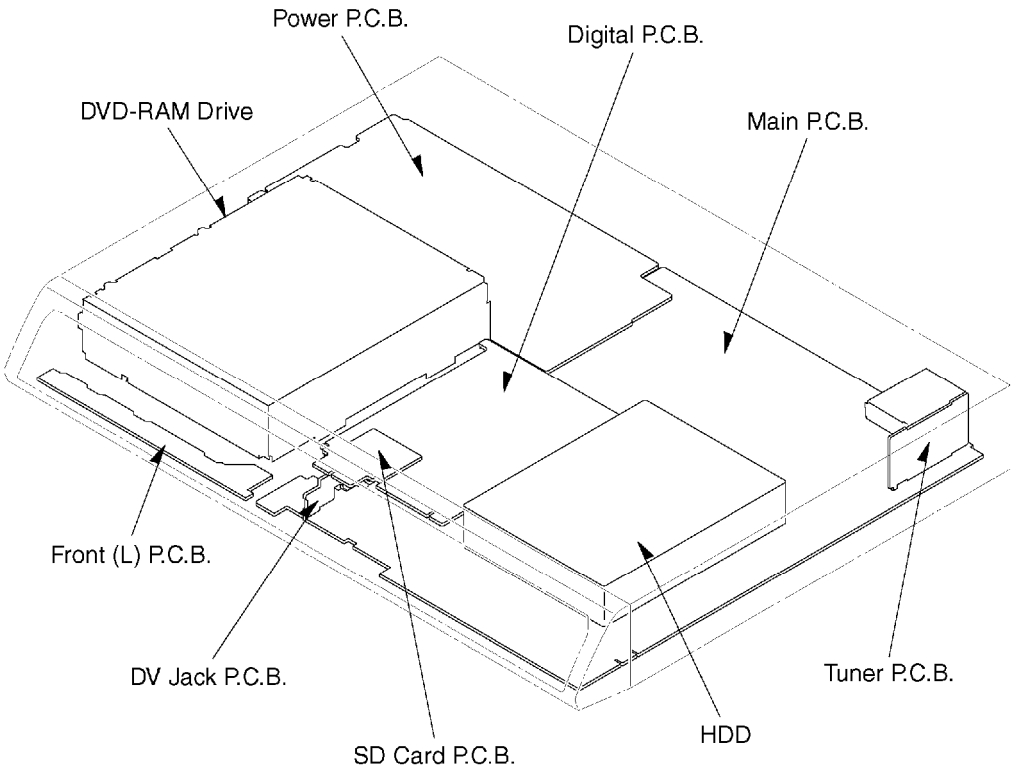
10. Disassembly and Assembly Instructions

10.1. Disassembly Flow Chart

The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.
To assemble the unit, reverse the steps shown in the chart below.



10.2. P.C.B. Positions

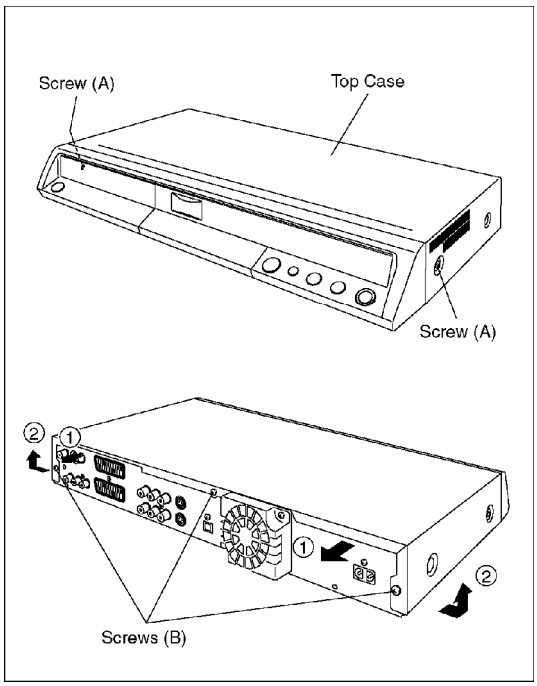


10.3. Top Case

1. Remove 2 screws (A) and 3 screws (B).

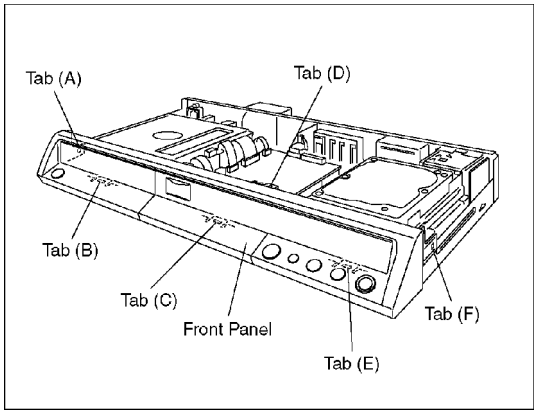
2. Slide Top Case rearward and open the both ends at rear side of

the Top Case a little and lift the Top Case in the direction of the arrows.



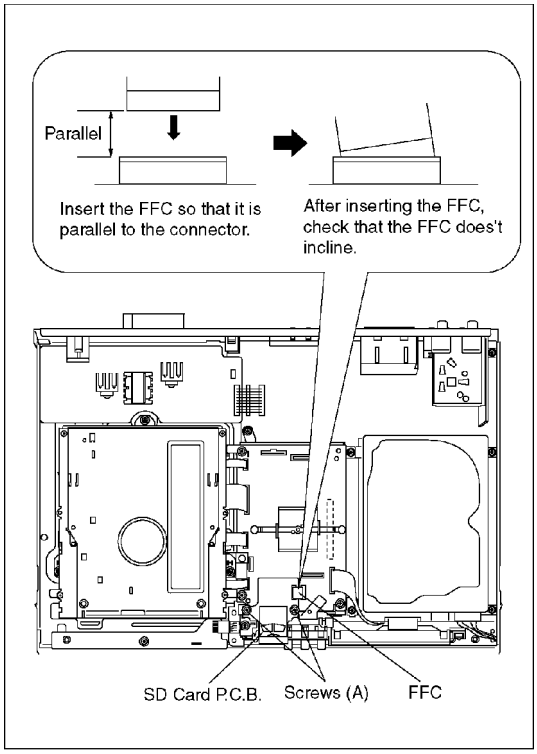
10.4. Front Panel

1. Unlock 6 tabs in (A) - (F) turn.
Pull with the front panel in the direction of your side.



10.5. SD Card P.C.B.

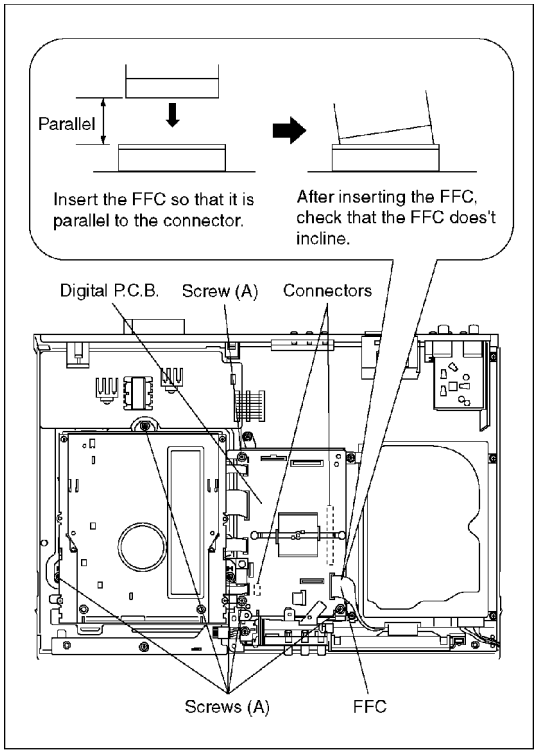
1. Remove 1 FFC and 2 screws (A) to remove SD Card P.C.B..


Parallel
Insert the FFC so that it is parallel to the connector.
After inserting the FFC, check that the FFC does't incline.
SD Card P.C.B.
Screws (A)
FFC

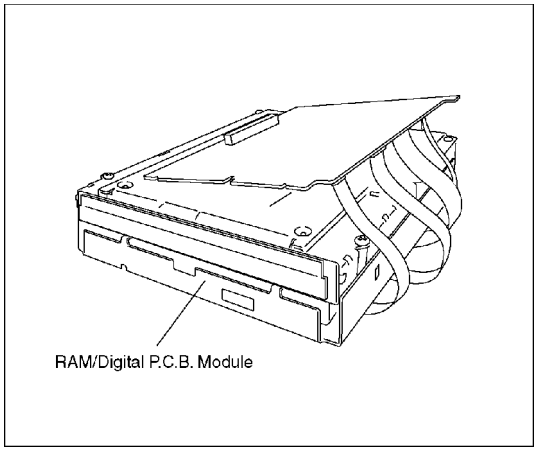
10.6. RAM/Digital P.C.B. Module

Caution:
Pairing of RAM Drive and Digital P.C.B. as "RAM/ Digital P.C.B. Module" have to be replaced together. If the pairing is changed, RAM Drive unit has to be re-aligned. Because the alignment data for RAM Drive Unit is stored in Digital P.C.B..

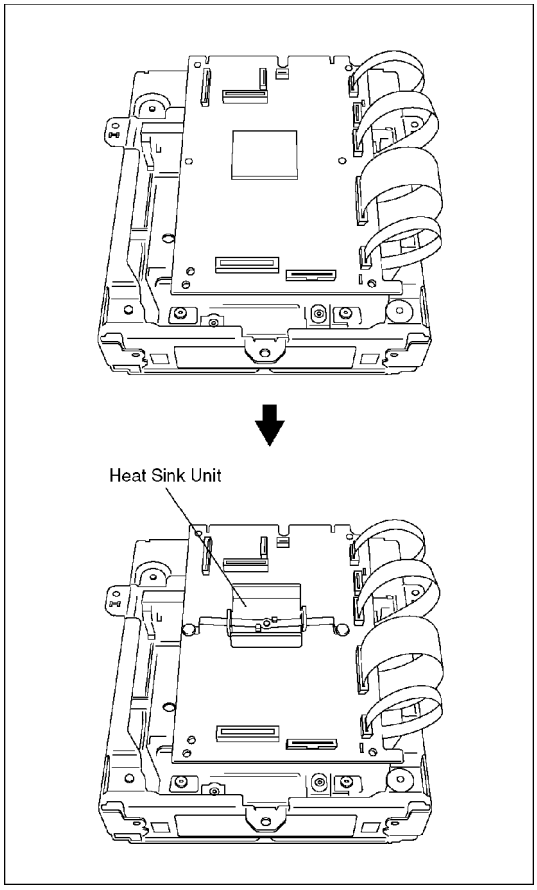
1. **Remove 1 FFC and Screws (A).**
2. **Lift up Digital P.C.B. slightly so to disconnect Connectors to remove Digital P.C.B.**



3. Put Digital P.C.B. on RAM Drive and remove RAM/Digital P.C.B. Module.

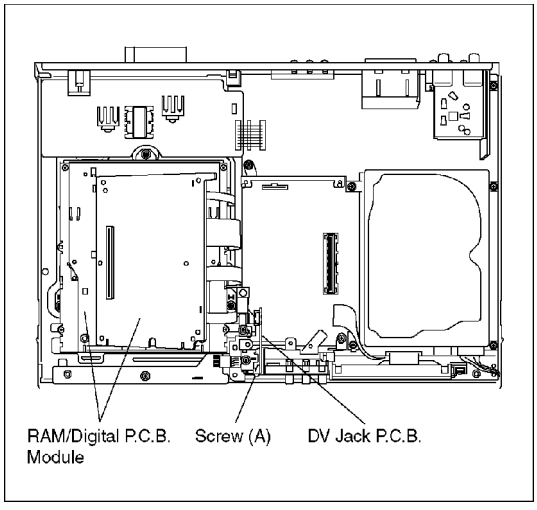


Note:
RAM/Digital P.C.B. Module as service part has no heat sink unit.
Before returning to customer, heat sink unit should be installed on Digital P.C.B..



10.7. DV Jack P.C.B.

1. Remove 1 Screw (A) to remove DV Jack P.C.B.



10.8. HDD

Caution:
Writing the main firmware to the unit is necessary after replacing the HDD.
Prepare the latest firmware updating disc.

* The main firmware is recorded in the HDD, but the replacement HDD has no data (and needs to be formatted).

Writing Procedure of Main Firm:

Caution:
(1) Writing of Main Firm needs 3, 4 minutes.
(2) Never cut the power of DVD Recorder until writing in Firmware ends.
(3) Initial settings and contents of reservation will not change if writing is normally completed.

1. Prepare latest firmware updating disc.
2. Replace HDD.
3. Turn on power of DVD Recorder.
4. After [PLEASE WAIT] is displayed on FL., [HDD ERR] is displayed on FL.
5. Tray opens automatically.
6. Insert updating disc for Firmware and press OPEN/CLOSE key.
   (If a wrong disc was inserted, [NG DISK] [NO FVU] is displayed on FL.)
7. [LOAD] >[LD FVU]↔[M_FIRM] are displayed on FL alternately.
8. [MAIN]↔[UPD OK] blink alternately and Tray opens.
   Take out disc (Writing was finished).
9. Press Power button to turn off power.
10. Press Power button to turn on power.
11. [HELLO] >[SELF CHECK] are displayed on FL.
12. [UNFORMAT] is displayed on FL.
13. After [UNFORMAT] was displayed, message to request FORMAT is displayed on TV screen.
14. Select [Yes] and press [ENTER] key to format HDD.
    (After FORMAT, program in HDD will be lost, but Main firm will not be lost.)

"Write of the main farm" is completed above.

* Drive firm is not updated by above operation. If you wish update Drive firm, please prepare the disc for latest firmware update, and write it again.
* If the version of the firm you have prepared was same as or later than that has already been written in deck, 'UNSUPPORT' is displayed on FL.
* In a usual updating of firmware, writing is not performed when the timer reservation standby was not released.

Handling of HDD

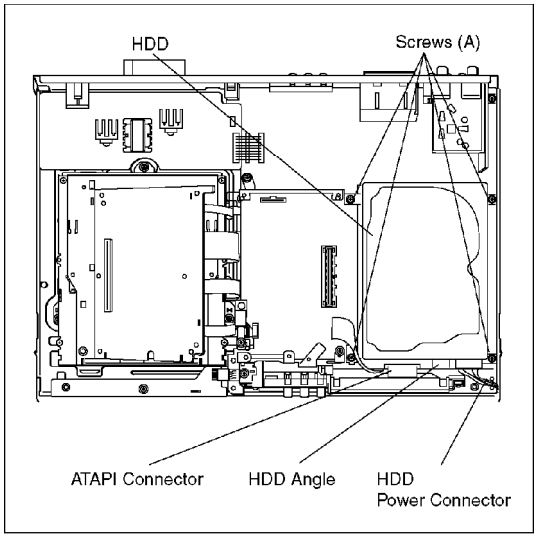
The following precautions should be taken when handling HDD.

a. Never give an impact to HDD. (Even a drop from 1cm height can be a cause of HDD failure.
b. When placing HDD on a workbench, provide a mat on a bench for shock absorption and anti-static purposes.
c. When installing HDD, release it from your hands only after confirming that it is fully set on the chassis.
d. Avoid stacking up HDD.
e. HDD is unstable and easy to fall. Do not stand it on its side face.
f. When handling HDD, hold its side faces to avoid static hazard.
g. Do not place HDD on its wrapping bag after removal. (Prevention of static hazard
h. Use a screwdriver with low impact and anti-static features.

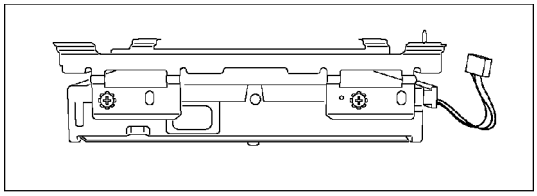
Note:
When replacing HDD, please make the rear jumper slave or cable select configuration.

1. Remove ATAPI Connector and HDD Power Connector.

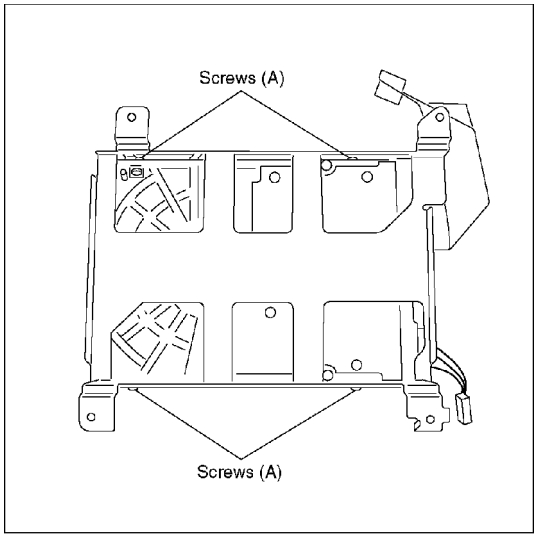
2. Remove 4 Screws (A) to remove HDD Angle with HDD.



3. Put HDD with HDD Angle up and down inversely so as not to give a shock to HDD.

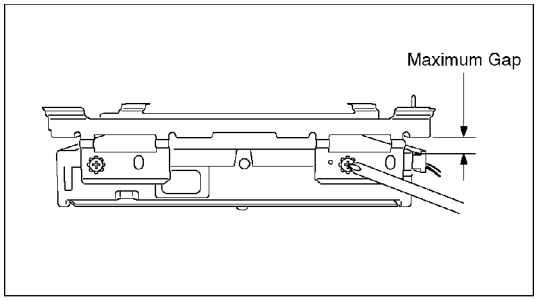


4. Remove 4 screws (A) remove HDD.



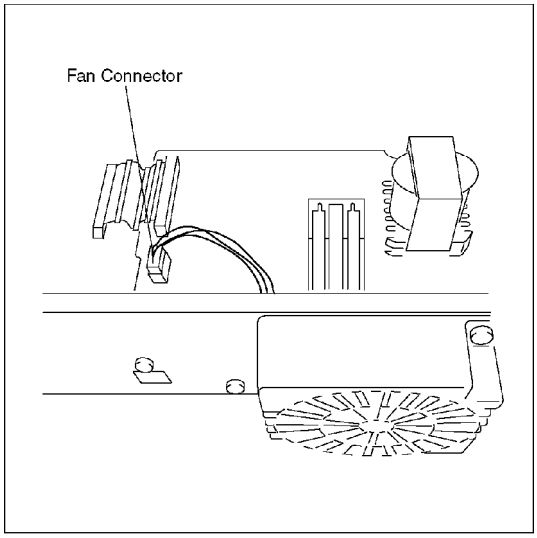
Caution for Attaching HDD

Put HDD up and down inversely so as not to give a shock to HDD, and put HDD Angle on to HDD and tighten 4 screws while lifting HDD Angle so as to keep maximum gap between HDD and HDD Angle.

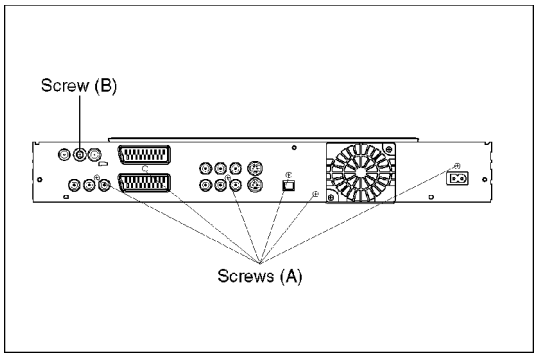


10.9. Rear Panel

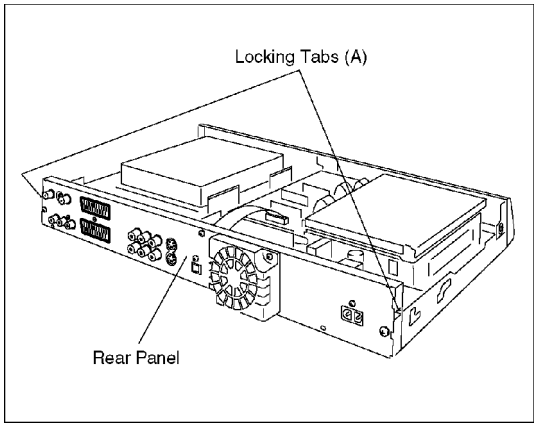
1. Disconnect Fan Connector.



2. Remove 6 Screws (A) and 1 Screw (B).



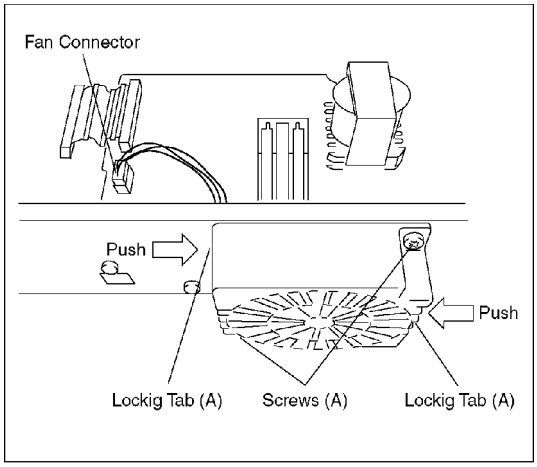
3. Unlock 2 Locking Tabs (A) to remove Rear Panel.



10.9.1. Fan Motor

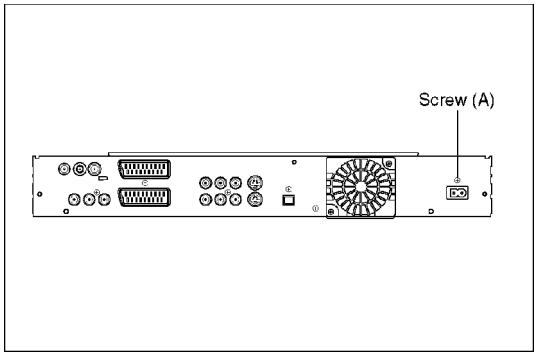
1. Disconnect Fan Connector and remove 2 Screws (A).

2. Push and unlock 2 Locking Tabs (A) to remove Fan Motor.

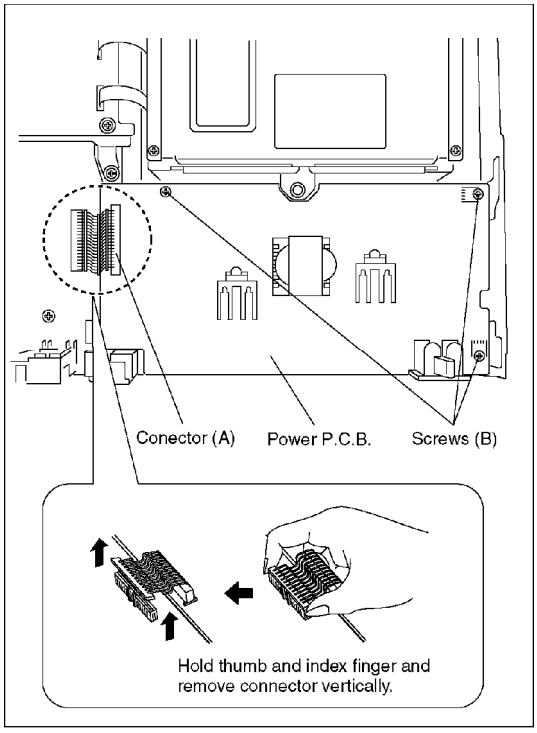


10.10. Power P.C.B.

1. Remove 1 Screw (A).

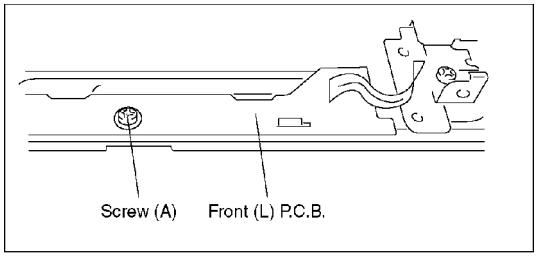


2. Remove 3 Screws (B) and disconnect Connector (A) to remove Power P.C.B..



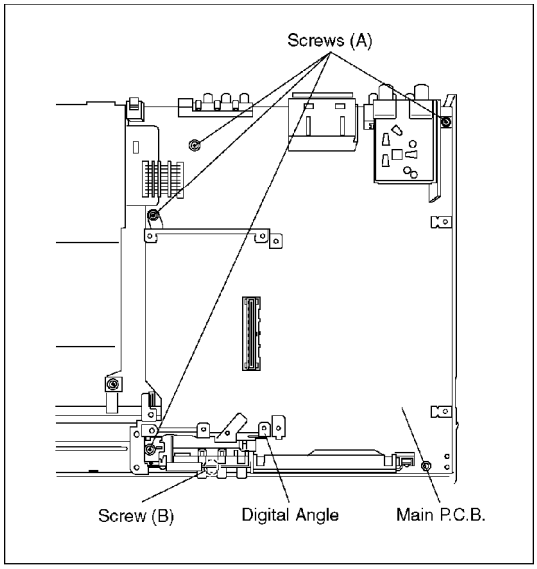
10.11. Main P.C.B. and Front (L) P.C.B.

1. Remove 1 Screw (A).



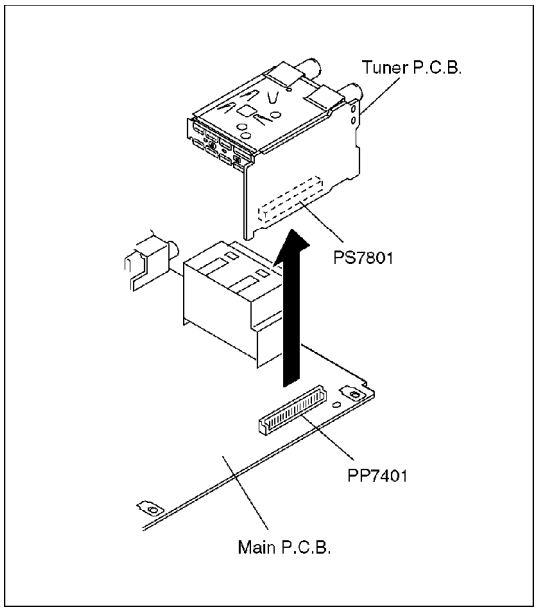
2. Remove 4 Screws (A) and 1 Screw (B).

3. Remove Digital Angle to remove Main P.C.B. and Front (L) P.C.B..



10.12. Tuner P.C.B.

1. Pull out the Tuner P.C.B. in the direction of the arrow.



11. Measurements and Adjustments

11.1. Service Positions

Note:
For description of the disassembling procedure, see the section 10.

11.1.1. Checking and Repairing of Power P.C.B.

1. **Top Case**

Remove 2 Screws (A) on side

Remove 3 rear Screws (B) on rear

Remove Top Case

2. **Power P.C.B.**

Remove 1 Screw (A) for AC Inlet fixing

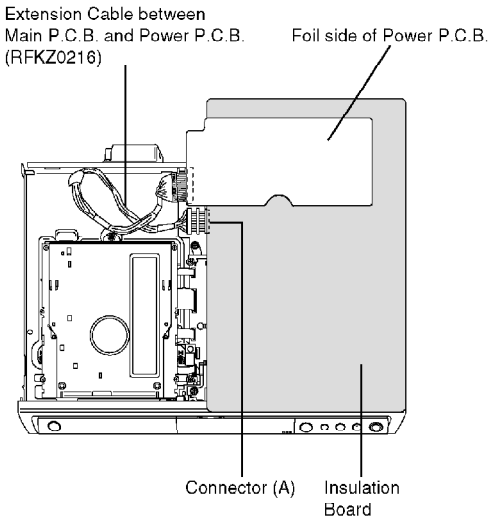
Remove 3 Screws (B) for Power P.C.B.fixing

Remove Connector (A) to Main P.C.B.

Connect Extension Cable between Main P.C.B. and Power P.C.B. (RFKZ0216).

Put Power P.C.B. on Insulation Board so that it's foil side faces top.

Caution:
Red wire in the extension cable should be connected to (1) pin.



11.1.2. Checking and Repairing of RAM / Digital P.C.B. Module

1. Top Case

Remove 2 Screws (A) on side

Remove 3 rear Screws (B) on rear

Remove Top Case

2. Front Panel

Unlock 1 Locking Tab on upper

Unlock 2 Locking Tabs on side

Unlock 3 Locking Tabs on bottom

Remove Front Panel

3. SD Card P.C.B.

Remove 2 Screws fixing SD Card P.C.B.

Remove 1 FFC from Digital P.C.B.

Remove SD Card P.C.B.

4. RAM/Digital P.C.B. Module

Remove 6 Screws (A) fixing RAM/Digital P.C.B. Module

Remove 1 FFC from HDD

Lift up Digital P.C.B. to remove it

5. DV Jack P.C.B.

Remove 1 Screw (A) fixing DV Jack P.C.B.

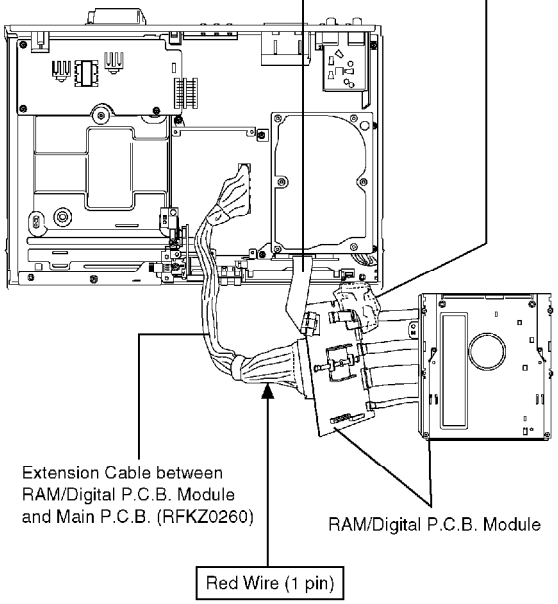
Remove DV Jack P.C.B.

Attach DV Jack P.C.B. on to Digital P.C.B.. SD Card P.C.B. is wrapped with insulation sheet. Connecting to Digital P.C.B. with original FFC.
Put RAM/Digital P.C.B. Module on side.

Connect Extension Cable between HDD and RAM/Digital P.C.B. Module (RFKZ0366), and between Main P.C.B. and RAM/Digital P.C.B. Module (RFKZ0260).

Caution:
Red wire in the extension cable should be connected to (1) pin.

Note:
SD Card P.C.B. is wrapped with insulation sheet.


Extension Cable between RAM/Digital P.C.B. Module and HDD (RFKZ0366)
Extension Cable between RAM/Digital P.C.B. Module and Main P.C.B. (RFKZ0260)
RAM/Digital P.C.B. Module
Red Wire (1 pin)

11.1.3. Checking and Repairing of Main P.C.B.

1. Top Case

- Remove 2 Screws (A) on side
- Remove 3 rear Screws (B) on rear
- Remove Top Case

2. Front Panel

- Unlock 1 Locking Tab on upper
- Unlock 2 Locking Tabs on side
- Unlock 3 Locking Tabs on bottom
- Remove Front Panel

3. SD Card P.C.B.

- Remove 2 Screws (A) fixing SD Card P.C.B.
- Remove 1 FFC from Digital P.C.B.
- Remove SD Card P.C.B.

4. RAM/Digital P.C.B. Module

- Remove 6 Screws (A) fixing RAM/Digital P.C.B. Module
- Remove 1 FFC from HDD
- Lift up Digital P.C.B. to remove it

5. DV Jack P.C.B.

- Remove 1 Screw (A) fixing DV Jack P.C.B.
- Remove DV Jack P.C.B.

5. HDD

- Remove 4Pin Power Cable from HDD
- Remove 4 Screws (A) fixing HDD Angle to remove it with HDD

7. Rear Panel

- Disconnect Fan Connector
- Remove 7 Screws (one is for Tuner)
- Unlock 2 Locking Tabs on side
- Remove Rear Panel

8. Power P.C.B.

- Remove 1 Screw (A) fixing AC Inlet
- Remove 3 Screw (B) fixing Power P.C.B.
- Remove Connector (A) to Main P.C.B.

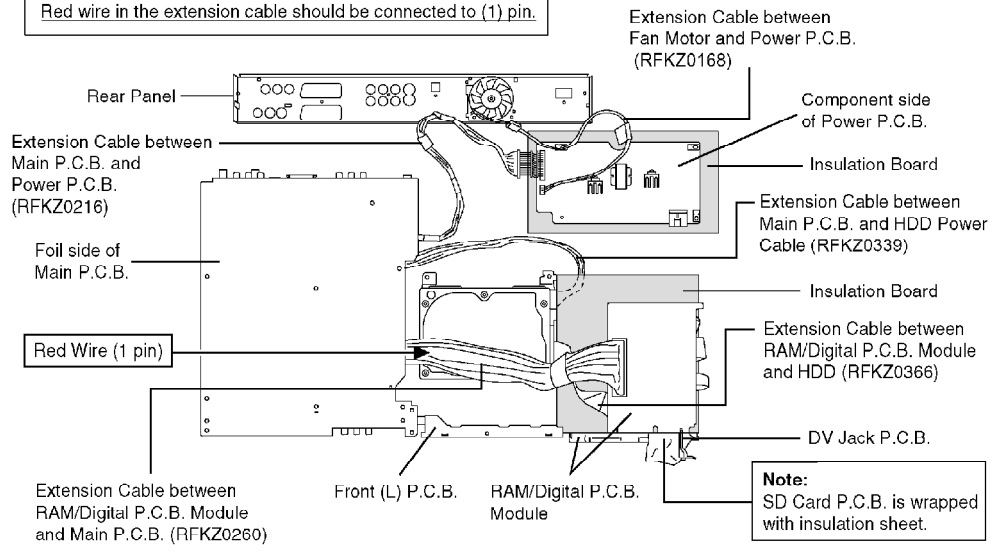
9. Front (L) P.C.B. and Main P.C.B.

- Remove 1 Screw to remove Front (L) P.C.B.
- Remove 9 Screws to remove Main P.C.B. (one is for Front Jack)

SD Card P.C.B. is wrapped with insulation sheet.
Connecting to Digital P.C.B. withoriginal FFC.
Attach DV Jack P.C.B. to Digital P.C.B..
Remove Power P.C.B. from Chassis,and put Power P.C.B. so that it's component side faces top.
Remove Front (L) and Main P.C.B. from Chassis,and put Front (L) and Main P.C.B. so that it's foil side faces top.
Put Insulation Board on DVD Drive, then place Digital P.C.B. on Insulation Board.

Connect Extension Cable between Main P.C.B. and RAM/Digital P.C.B. Module (RFKZ0260), and between Main P.C.B. and Power P.C.B. (RFKZ0216), and between HDD Power Cable and Main P.C.B. (RFKZ0339), and between HDD and RAM/Digital P.C.B. Module (RFKZ0366), and between Fan Motor and Power P.C.B. (RFKZ0168).

Caution:
Red wire in the extension cable should be connected to (1) pin.


Extension Cable between Fan Motor and Power P.C.B. (RFKZ0168)
Rear Panel
Component side of Power P.C.B.
Extension Cable between Main P.C.B. and Power P.C.B. (RFKZ0216)
Insulation Board
Extension Cable between Main P.C.B. and HDD Power Cable (RFKZ0339)
Foil side of Main P.C.B.
Insulation Board
Red Wire (1 pin)
Extension Cable between RAM/Digital P.C.B. Module and HDD (RFKZ0366)
DV Jack P.C.B.
Extension Cable between RAM/Digital P.C.B. Module and Main P.C.B. (RFKZ0260)
Front (L) P.C.B.
RAM/Digital P.C.B. Module
Note:
SD Card P.C.B. is wrapped with insulation sheet.

11.1.4. Checking and Repairing of HDD

1. Top Case

- Remove 2 Screws (A) on side
- Remove 3 rear Screws (B) on rear
- Remove Top Case

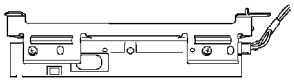
2. HDD

- Remove 1 FFC from Digital P.C.B.
- Remove 4 Pin Power Cablefrom Main P.C.B.
- Remove 4 Screws (A) to remove HDD Angle with HDD
- Connect HDD ATAPI Connector to Replacement HDD
- Connect 4 Pin Power Cable to Replacement HDD
- Put Replacement HDD on Insulation Board.

  Connect Extension Cable between Replacement HDD and RAM/Digital P.C.B. Module (RFKZ0366),and between Replacement HDD and Main P.C.B. (RFKZ0339).

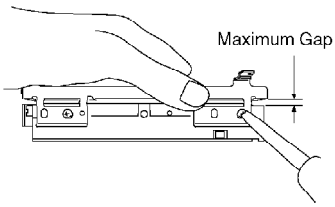
Caution for Removing HDD

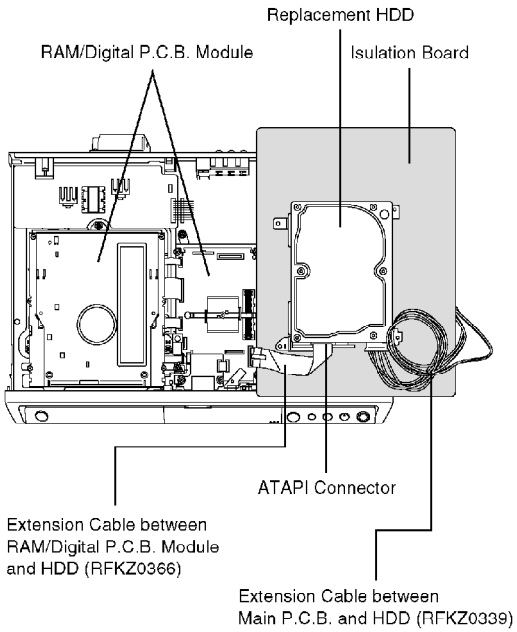
Put HDD with HDD Angle up and down inversely and remove 4 screws to remove HDD so as not to give a shock to HDD.



Caution for Attaching HDD

Put HDD up and down inversely, and put HDD Angle on to HDD and tighten 4 screws while lifting HDD Angle so as to keep maximum gap between HDD and HDD Angle.





11.2. Caution for Replacing Parts

11.2.1. Items that should be done after replacing parts

√ :Necessary — :Unnecessary

Items that Should be done / Replacing Parts	Reset IC7501 (*Note1)	Obtain and register a new registration code.(*Note2)	Main Firm update(*Note3)	HDD Format
Main P.C.B.	√	√	—	√
IC7501 (Timer IC)	√	—	—	—
IC7404 (EEPROM)	—	√	—	√
HDD	—	—	√	√

*Note1:
Resetting Method

Reset object	Condition of power	Short Terminal
IC7501 (Timer IC)	POWER ON	IC7502-4 (RESET_L) and GND

*Note2:
Please will always pass the customer "Warning for Customers Who Use the DivX Video-on-Demand content." with the product and get it when you unavoidably exchange EEPROM or P.C.B. including EEPROM (When the product is exchanged, it is the same.).
You must use print attached to service part (EEPROM or P.C.B. including EEPROM) or must use copy of print below as "Warning for Customers who use the DivX Video-on-Demand content."
Information needed without fail for the customer for whom it is used continuing DivX Video-on-Demand Service to "Manual for the customer" is recorded.

Appendix:

* Parts that memorize user's information are only EEPROM.
* The registration of Registration Code is possible for half a year up to 6 recorders up to 10 recorders a year. Replacement of EEPROM or P.C.B. including EEPROM spends one of this.

Registration Code is memorized in EEPROM (RFKFxxxxxx).
Model without VHS: Main P.C.B.
Model with VHS: Digital I/F P.C.B. (Power & DVD I/F/P.C.B.)
If exchange above P.C.B. or EEPROM, new registration Code differ from previous Registration Code will be generated.
In this case if your customer uses DivX Video-on-Demand service, he/she will no longer be able to play any content that he/she purchased under that same registration code.
Therefore your customer will need to obtain and register the new registration code.

*Copy this page and cut on the dotted line and give the lower half to your customer.

Warning for Customers who use the DivX Video-on-Demand content.

1. The registration code has been changed for the repair of the product or the product exchange.
2. Obtain and register a new registration code, otherwise you will no longer be able to play DivX Video-on-Demand content.
3. Follow the procedure on the DivX Video-on-Demand web site to register at
   http://vod.divx.com/
   * If you do not use the DivX Video-on-Demand content, please ignore this warning.

Note3:
Please prepare latest firmware updating disc.
*** Main Firm is being recorded in HDD, but new HDD has no data.**
Writing Procedure of Main Firm:
<<Caution>>
(1) Writing of Main Firm needs 3, 4 minutes.
(2) Never cut the power of DVD Recorder until writing in Firmware ends.
(3) Initial settings and contents of reservation will not change if writing is normally completed.

1. Prepare updating disc for firm ware.

2. Replace HDD.

3. Turn on power of DVD Recorder.
4. After [PLEASE WAIT] is displayed on FL., [HDD ERR] is displayed on FL.
5. Tray opens automatically.
6. Insert updating disc for Firmware and press OPEN/CLOSE key. (If a wrong disc was inserted, [NG DISK] [NO FVU] is displayed on FL.)
7. [LOAD] → [LD FVU] ← → [M_FIRM] are displayed on FL alternately.
8. [MAIN] ← → [UPD OK] blink alternately and Tray opens. Take out disc (Writing was finished).
9. Press Power button to turn off power.
10. Press Power button to turn on power.
11. [HELLO] → [SELF CHECK] are displayed on FL.
12. [UNFORMAT] is displayed on FL.
13. After [UNFORMAT] was displayed, message to request FORMAT is displayed on TV screen.
14. Select [Yes] and press [ENTER] key to format HDD.

(After FORMAT, program in HDD will be lost, but Main firm will not be lost.
"Write of the main farm" is completed above.
*** Drive firm is not updated by above operation. If you wish update Drive firm, please prepare the disc for latest firmware update, and write it again.**
*** If the version of the firm you have prepared was same as or later than that has already been written in deck, 'UNSUPPORT' is displayed on FL.**
*** In a usual updating of firmware, writing is not performed when the timer reservation standby was not released.**

11.3. Standard Inspection Specifications after Making Repairs

After making repairs, we recommend performing the following inspection, to check normal operation.

No.	Procedure	Item to Check
1	Turn on the power, and confirm items pointed out.	Items pointed out should reappear.
2	Insert RAM disc.	The Panasonic RAM disc should be recog
3	Enter the EE (TU IN / AV IN - AV OUT) mode.	No abnormality should be seen in the pict sound or operation.
4	Perform auto recording and playback for one minute using the RAM disc.	No abnormality should be seen in the pict sound or operation. *Panasonic DVD-RAM disc should be use recording and playback.
5	Model with the HDD: Perform auto recording and playback for one minute using the HDD.	No abnormality should be seen in the pict sound or operation.
6	If a problem is caused by a VCD, DVD-R, DVD-Video, Audio-CD, or MP3, playback the test disc.	No abnormality should be seen in the pict sound or operation.
7	Models with SD Card Slot or DV Input Jack: In case of that the trouble is caused by SD card and/ or DV terminal.	Models with SD Card or DV Input Jack; 1) SD Card: Check to be able to display ar the picture. 2) DV terminal: Check to be able to record DVC.
8	After checking and making repairs, upgrade the firmware to the latest version.	Make sure that [FIRM_SUCCESS] appears FL displays. *[UNSUPPORT] display means the unit is updated to newest same version. Then ve is not necessary.
9	Transfer [9][9] in the service mode setting, and initialize the service settings (return various settings and error information to their default values. The laser time is not included in this initialization).	Make sure that [CLR] appears in the FL di After checking it, turn the power off.

Use the following checklist to establish the judgement criteria for the picture and sound.

Item	Contents	Check	Item	Contents
Picture	Block noise		Sound	Distorted sound
	Crosscut noise			Noise (static, background noise, etc.)
	Dot noise			The sound level is too low.
	Picture disruption			The sound level is too high.
	Not bright enough			The sound level changes.
	Too bright			
	Flickering color			
	Color fading			

12. Block Diagram

12.1. Power Supply Block Diagram

12.2. Analog Video Block Diagram

12.3. Analog Audio Block Diagram

12.4. Analog Timer Block Diagram

13. Schematic Diagram

13.1. Interconnection Schematic Diagram

13.2. Power Supply Schematic Diagram

13.3. Main Net (1/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)

13.4. Main Net (2/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)

13.5. Main Net (3/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)

13.6. Main Net (4/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)

13.7. A/V I/O (1/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

13.8. A/V I/O (2/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

13.9. A/V I/O (3/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

13.10. A/V I/O (4/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

13.11. Nicam Decoder Section (Main P.C.B. (3/4)) Schematic Diagram (DE)

13.12. Timer (1/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)

13.13. Timer (2/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)

13.14. Timer (3/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)

13.15. Timer (4/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)

13.16. Tuner Pack Schematic Diagram

13.17. SD Card Schematic Diagram

13.18. Front (L) Schematic Diagram

13.19. DV Jack Schematic Diagram

14. Printed Circuit Board

14.1. Power P.C.B.

14.2. Main P.C.B.

14.2.1. Main P.C.B. (1/4 Section)

14.2.2. Main P.C.B. (2/4 Section)

14.2.3. Main P.C.B. (3/4 Section)

14.2.4. Main P.C.B. (4/4 Section)

14.2.5. Main P.C.B. Address Information

14.3. Tuner P.C.B. and DV Jack P.C.B.

14.4. SD Card P.C.B. and Front (L) P.C.B.

15. Appendix for Schematic Diagram

15.1. Voltage and Waveform Chart

Note)
Circuit voltage and waveform described herein shall be regarded as reference information when probing defect point, because it may differ from an actual measuring value due to difference of Measuring instrument and its measuring condition and product itself.

15.1.1. Power P.C.B.

15.1.2. Main P.C.B.

15.1.3. Tuner P.C.B.

15.1.4. P59001 Connector

15.1.5. Waveform Chart

15.1.6. Abbreviations

INITIAL/LOGO		ABBREVIATIONS
A	A0~UP	ADDRESS
	ACLK	AUDIO CLOCK
	AD0~UP	ADDRESS BUS
	ADATA	AUDIO PES PACKET DATA
	ALE	ADDRESS LATCH ENABLE
	AMUTE	AUDIO MUTE
	AREQ	AUDIO PES PACKET REQUEST
	ARF	AUDIO RF
	ASI	SERVO AMP INVERTED INPUT
	ASO	SERVO AMP OUTPUT
	ASYNC	AUDIO WORD DISTINCTION SYNC
B	BCK	BIT CLOCK (PCM)
	BCKIN	BIT CLOCK INPUT
	BDO	BLACK DROP OUT
	BLKCK	SUB CODE BLOCK CLOCK
	BOTTOM	CAP. FOR BOTTOM HOLD
	BYP	BYPATH
	BYTCK	BYTE CLOCK
C	CAV	CONSTANT ANGULAR VELOCITY
	CBDO	CAP. BLACK DROP OUT
	CD	COMPACT DISC
	CDSCK	CD SERIAL DATA CLOCK
	CDSRDATA	CD SERIAL DATA
	CDRF	CD RF (EFM) SIGNAL
	CDV	COMPACT DISC-VIDEO
	CHNDATA	CHANNEL DATA
	CKSL	SYSTEM CLOCK SELECT
	CLV	CONSTANT LINEAR VELOCITY
	COFTR	CAP. OFF TRACK
	CPA	CPU ADDRESS
	CPCS	CPU CHIP SELECT
	CPDT	CPU DATA
	CPUADR	CPU ADDRESS LATCH
	CPUADT	CPU ADDRESS DATA BUS
	CPUIRQ	CPU INTERRUPT REQUEST
	CPRD	CPU READ ENABLE
	CPWR	CPU WRITE ENABLE
	CS	CHIP SELECT
	CSYNCIN	COMPOSITE SYNC IN
	CSYNCOUT	COMPOSITE SYNC OUT

INITIAL/LOGO		ABBREVIATIONS
D	DACCK	D/A CONVERTER CLOCK
	DEEMP	DEEMPHASIS BIT ON/OFF
	DEMPH	DEEMPHASIS SWITCHING
	DIG0~UP	FL DIGIT OUTPUT
	DIN	DATA INPUT
	DMSRCK	DM SERIAL DATA READ CLOCK
	DMUTE	DIGITAL MUTE CONTROL
	DO	DROP OUT
	DOUT0~UP	DATA OUTPUT
	DRF	DATA SLICE RF (BIAS)
	DRPOUT	DROP OUT SIGNAL
	DREQ	DATA REQUEST
	DRESP	DATA RESPONSE
	DSC	DIGITAL SERVO CONTROLLER
	DSLF	DATA SLICE LOOP FILTER
	DVD	DIGITAL VIDEO DISC

INITIAL/LOGO		ABBREVIATIONS
E	EC	ERROR TORQUE CONTROL
	ECR	ERROR TORQUE CONTROL REFERENCE
	ENCSEL	ENCODER SELECT
	ETMCLK	EXTERNAL M CLOCK (81MHz/ 40.5MHz)
	ETSCLK	EXTERNAL S CLOCK (54MHz)
F	FBAL	FOCUS BALANCE
	FCLK	FRAME CLOCK
	FE	FOCUS ERROR
	FFI	FOCUS ERROR AMP INVERTED
	FEO	INPUT
	FG	FOCUS ERROR AMP OUTPUT
	FSC	FREQUENCY GENERATOR
	FSCK	FREQUENCY SUB CARRIER
		FS (384 OVER SAMPLING) CLOCK
G	GND	COMMON GROUNDING (EARTH)
H	HA0~UP	HOST ADDRESS
	HD0~UP	HOST DATA
	HINT	HOST INTERRUPT
	HRXW	HOST READ/WRITE

INITIAL/LOGO		ABBREVIATIONS
I	IECOUT	IEC958 FORMAT DATA OUTPUT
	IPFRAG	
	IREF	INTERPOLATION FLAG
	ISEL	I (CURRENT) REFERENCE
		INTERFACE MODE SELECT
L	LDON	LASER DIODE CONTROL
	LPC	LASER POWER CONTROL
	LRCK	L CH/R CH DISTINCTION CLOCK
M	MA0~UP	MEMORY ADDRESS
	MCK	MEMORY CLOCK
	MCKI	MEMORY CLOCK INPUT
	MCLK	MEMORY SERIAL COMMAND CLOCK
	MDATA	MEMORY SERIAL COMMAND DATA
	MDQ0~UP	MEMORY DATA INPUT/OUTPUT
	MDQM	MEMORY DATA I/O MASK
	MLD	MEMORY SERIAL COMMAND LOAD
	MPEG	MOVING PICTURE EXPERTS GROUP
O	ODC	OPTICAL DISC CONTROLLER
	OFTR	OFF TRACKING
	OSCI	OSCILLATOR INPUT
	OSCO	OSCILLATOR OUTPUT
	OSD	ON SCREEN DISPLAY
P	P1~UP	PORT
	PCD	CD TRACKING PHASE DIFFERENCE
	PCK	PLL CLOCK
	PDVD	DVD TRACKING PHASE DIFFERENCE
	PEAK	CAP. FOR PEAK HOLD
	PLLCLK / PLLOK	CHANNEL PLL CLOCK PLL LOCK
	PWMCTL	PWM OUTPUT CONTROL
	PWMDA	PULSE WAVE MOTOR DRIVE A
	PWMOA, B	PULSE WAVE MOTOR OUT A, B

INITIAL/LOGO		ABBREVIATIONS
R	RE	READ ENABLE
	RFENV	RF ENVELOPE
	RFO	RF PHASE DIFFERENCE
	RS	OUTPUT
	RSEL	(CD-ROM) REGISTER SELECT
	RST	RF POLARITY SELECT
	RSV	RESET
		RESERVE
S	SBI0, 1	SERIAL DATA INPUT
	SBO0	SERIAL DATA OUTPUT
	SBT0, 1	SERIAL CLOCK
	SCK	SERIAL DATA CLOCK
	SCKR	AUDIO SERIAL CLOCK
	SCL	RECEIVER
	SCLK	SERIAL CLOCK
	SDA	SERIAL CLOCK
	SEG0~UP	SERIAL DATA
	SELCLK	FL SEGMENT OUTPUT
	SEN	SELECT CLOCK
	SIN1, 2	SERIAL PORT ENABLE
	SOUT1, 2	SERIAL DATA IN
	SPDI	SERIAL DATA OUT
	SPDO	SERIAL PORT DATA INPUT
	SPEN	SERIAL PORT DATA OUTPUT
	SPRCLK	SERIAL PORT R/W ENABLE
	SPWCLK	SERIAL PORT READ CLOCK
	SQCK	SERIAL PORT WRITE CLOCK
	SQCX	SUB CODE Q CLOCK
	SRDATA	SUB CODE Q DATA READ
	SRMADR	CLOCK
	SRMDT0~7	SERIAL DATA
		SRAM ADDRESS BUS
	SS	SRAM DATA BUS 0~7
	STAT	START/STOP
	STCLK	STATUS
	STD0~UP	STREAM DATA CLOCK
	STENABLE	STREAM DATA
		STREAM DATA INPUT ENABLE
	STSEL	STREAM DATA POLARITY
	STVALID	SELECT
	SUBC	STREAM DATA VALIDITY
	SBCK	SUB CODE SERIAL
	SUBQ	SUB CODE CLOCK
	SYSCLK	SUB CODE Q DATA
		SYSTEM CLOCK

		SYSTEM CLOCK

INITIAL/LOGO		ABBREVIATIONS
T	TE	TRACKING ERROR
	TIBAL	BALANCE CONTROL
	TID	BALANCE OUTPUT 1
	TIN	BALANCE INPUT
	TIP	BALANCE INPUT
	TIS	BALANCE OUTPUT 2
	TPSN	OP AMP INPUT
	TPSO	OP AMP OUTPUT
	TPSP	OP AMP INVERTED INPUT
	TRCRS	TRACK CROSS SIGNAL
	TRON	TRACKING ON
	TRSON	TRAVERSE SERVO ON

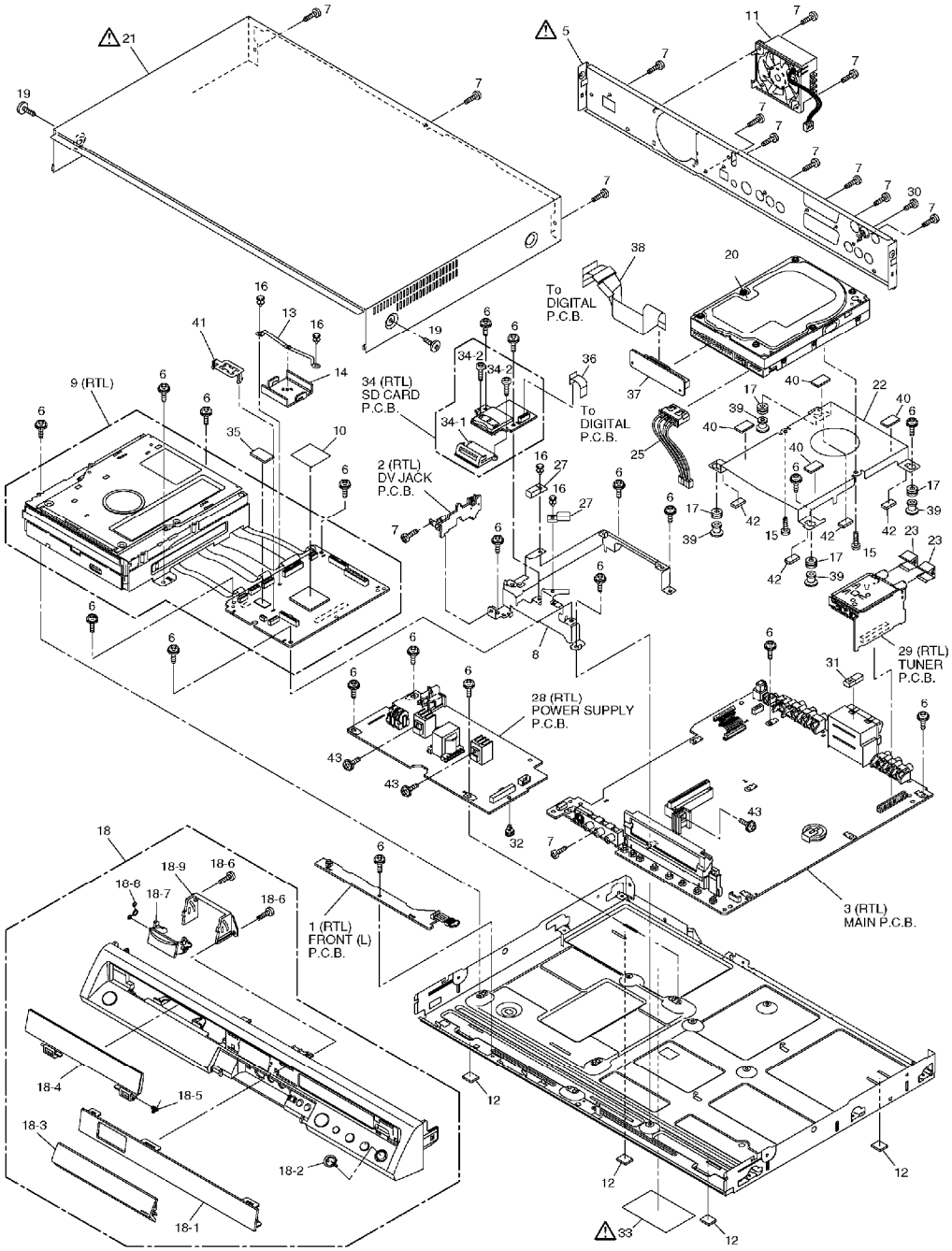
INITIAL/LOGO		ABBREVIATIONS
V	VBLANK	V BLANKING
	VCC	COLLECTOR POWER SUPPLY VOLTAGE
	VCDCONT	VIDEO CD CONTROL (TRACKING BALANCE)
	VDD	DRAIN POWER SUPPLY VOLTAGE
	VFB	VIDEO FEED BACK
	VREF	VOLTAGE REFERENCE
	VSS	SOURCE POWER SUPPLY VOLTAGE
W	WAIT	BUS CYCLE WAIT
	WDCK	WORD CLOCK
	WEH	WRITE ENABLE HIGH
	WSR	WORD SELECT RECEIVER

INITIAL/LOGO		ABBREVIATIONS
X	X	X' TAL
	XALE	X ADDRESS LATCH ENABLE
	XAREQ	X AUDIO DATA REQUEST
	XCDROM	X CD ROM CHIP SELECT
	XCS	X CHIP SELECT
	XCSYNC	X COMPOSITE SYNC
	XDS	X DATA STROBE
	XHSYNCO	X HORIZONTAL SYNC OUTPUT
	XHINT	XH INTERRUPT REQUEST
	XI	X' TAL OSCILLATOR INPUT
	XINT	X INTERRUPT
	XMW	X MEMORY WRITE ENABLE
	XO	X' TAL OSCILLATOR OUTPUT
	XRE	X READ ENABLE
	XSRMCE	X SRAM CHIP ENABLE
	XSRMOE	X SRAM OUTPUT ENABLE
	XSRMWE	X SRAM WRITE ENABLE
	XVCS	X V-DEC CHIP SELECT
	XVDS	X V-DEC CONTROL BUS
	XVSYNCO	STROBE
		X VERTICAL SYNC OUTPUT

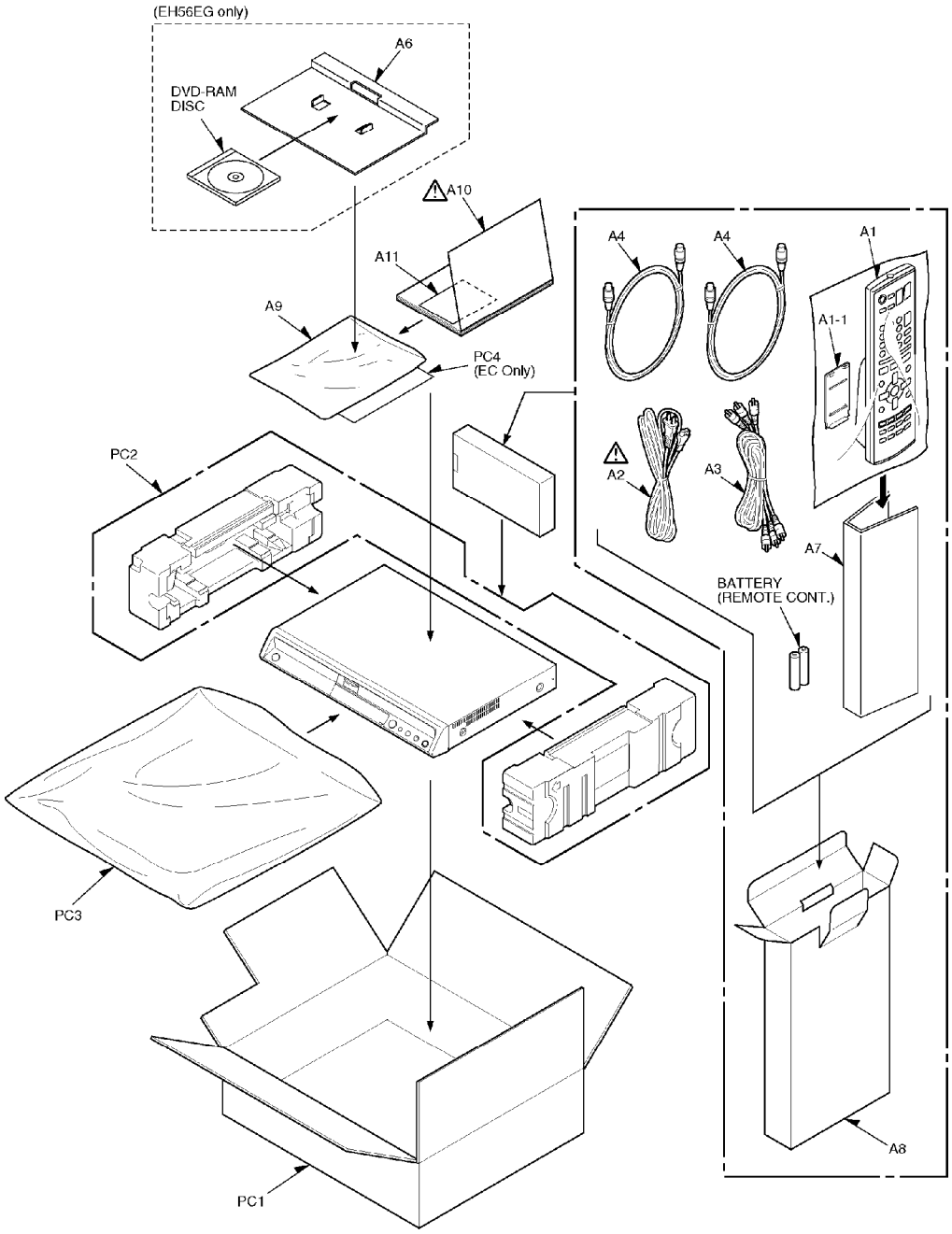
16. Parts and Exploded Views

16.1. Exploded Views

16.1.1. Casing Parts & Mechanism Section



16.1.2. Packing & Accessories Section



16.2. Replacement Parts List

Notes:
***Important safety notice:**
Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.
***Warning: This product uses a laser diode. Refer to caution statements.**
***Capacity values are in microfarads (μ F) unless specified otherwise, P=Pico-farads (pF), F= Farads (F).**

***Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM), 1M=1,000k (OHM).**
***The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.**
***"(IA)-(IH)", marks in Remarks indicate languages of instruction manuals. [(IA): Polish, (IB): English, (IC): German, (ID): Italian, (IE): Dutch, (IF): French, (IG): Spanish, (IH): Swedish/ Danish]**
***Parts indicated with PAVC-CSG in the Remarks column are supplied by PAVC-CSG.**
***All parts except parts indicated with (PAVC-CSG) in the Remarks column are supplied by PAVCG.**

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
■	RFKB79119JT	MAIN P.C.B.		(RTL)EPS,EPK
■	RFKB79119HT	MAIN P.C.B.		(RTL)ECS,ECK
■	RFKB79119GT	MAIN P.C.B.		(RTL)EGS,EGK
C1503	F2A1A6810022	10V 680P	1	
C1504	F2A1E1010067	25V 100U	1	
C1508	ECJ1VB1A105K	10V 1U	1	
C1509	F1H1H1030006	50V 0.01U	1	
C1510	ECJ1VB1A105K	10V 1U	1	
C1511	ECJ1VB1A105K	10V 1U	1	
C1512	ECJ1VB1A105K	10V 1U	1	
C1515	F2A1E4700048	25V 47U	1	
C1516	F2A1H1510006	50V 150P	1	
C1518	F2A0J6810007	6.3V 680P	1	
C1519	ECJ1VB1A105K	10V 1U	1	
C1520	ECJ1VB1A105K	10V 1U	1	
C1521	F2A1C121A453	16V 120P	1	
C1522	ECJ1VB1A105K	10V 1U	1	
C1523	F2A1A470A388	10V 47U	1	
C1524	F2A1A101A389	10V 100U	1	
C1525	F1H1C104A042	16V 0.1U	1	
C1526	ECJ1VB1A105K	10V 1U	1	
C1527	ECJ1VB1A105K	10V 1U	1	
C1528	ECJ3YB1C105K	16V 1U	1	
C1529	F2A1A470A388	10V 47U	1	
C1535	ECJ1VB1A105K	10V 1U	1	
C1536	F1J0J106A014	6.3V 10U	1	
C1538	ECJ1VB1A105K	10V 1U	1	
C1539	ECJ1VB1A105K	10V 1U	1	
C1540	F1H1H1030006	50V 0.01U	1	
C1541	F2A1E1010067	25V 100U	1	
C1548	F2A1C121A453	16V 120P	1	
C1549	F2A1C121A453	16V 120P	1	
C3001	F1H1C104A042	16V 0.1U	1	
C3002	F1H1H1030006	50V 0.01U	1	
C3003	F1H1C104A042	16V 0.1U	1	
C3004	F1H1C104A042	16V 0.1U	1	
C3005	ECA0JM471B	6.3V 470U	1	
C3006	ECA0JM471B	6.3V 470U	1	
C3007	F2A1A4710038	10V 470U	1	
C3008	F2A1A1010072	10V 100U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3009	F2A1A4710038	10V 470U	1	
C3010	F2A1A1010072	10V 100U	1	
C3011	F1H1C104A042	16V 0.1U	1	
C3012	F2A1A4710038	10V 470U	1	
C3013	F2A1A1010072	10V 100U	1	
C3014	F1H1C104A042	16V 0.1U	1	
C3015	F1H1C104A042	16V 0.1U	1	
C3016	F1H1C104A042	16V 0.1U	1	
C3017	F1H1C104A042	16V 0.1U	1	
C3018	F1H1C104A042	16V 0.1U	1	
C3019	F1H1C104A042	16V 0.1U	1	
C3020	F1H1C104A042	16V 0.1U	1	
C3021	F1H1C104A042	16V 0.1U	1	
C3022	F1H1C104A042	16V 0.1U	1	
C3024	F1H0J1050012	6.3V 1U	1	
C3025	F1H1C104A042	16V 0.1U	1	
C3026	F1H0J1050012	6.3V 1U	1	
C3027	F1H1C104A042	16V 0.1U	1	
C3028	F1H0J1050012	6.3V 1U	1	
C3029	F1H1C104A042	16V 0.1U	1	
C3031	F1H1H1030006	50V 0.01U	1	
C3032	ECEA0JKA101B	6.3V 100U	1	
C3033	F1H1H1030006	50V 0.01U	1	
C3034	F1H1H1030006	50V 0.01U	1	
C3035	ECEA0JKA101B	6.3V 100U	1	
C3038	F1H1C104A042	16V 0.1U	1	
C3039	F1H1C104A042	16V 0.1U	1	
C3041	F1H1H330A736	50V 33P	1	
C3057	F1H1H1020005	50V 0.001U	1	
C3058	ECJ1VC1H471J	50V 470P	1	
C3059	F1H1H1020005	50V 0.001U	1	
C3060	ECJ1VC1H471J	50V 470P	1	
C3064	F1H1C104A042	16V 0.1U	1	
C3070	F1H1H1020005	50V 0.001U	1	
C3071	F1H1H1020005	50V 0.001U	1	
C3072	F1H1C104A042	16V 0.1U	1	
C3910	F2A1V100A534	35V 10U	1	
C3911	F2A1V100A534	35V 10U	1	
C3914	F2A1H100A236	50V 10U	1	
C3915	F2A1H100A236	50V 10U	1	
C3916	F2A1H1R0A236	50V 1U	1	
C3917	F2A1H1R0A236	50V 1U	1	
C3918	F2A1H100A236	50V 10U	1	
C3919	F2A1H100A236	50V 10U	1	
C3928	F2A1H1R0A638	50V 1U	1	
C3929	F2A1H1R0A638	50V 1U	1	
C3935	F2A1E2210050	25V 220U	1	
C3953	ECJ1VC1H471J	50V 470P	1	
C3954	ECJ1VC1H471J	50V 470P	1	
C3955	ECJ1VC1H221J	50V 220P	1	
C3956	ECJ1VC1H221J	50V 220P	1	
C3957	ECJ1VC1H471J	50V 470P	1	
C3958	ECJ1VC1H471J	50V 470P	1	
C3961	ECJ1VC1H221J	50V 220P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3962	ECJ1VC1H221J	50V 220P	1	
C4003	F1H0J1050012	6.3V 1U	1	
C4005	F2A1V100A534	35V 10U	1	
C4006	F2A1V100A534	35V 10U	1	
C4008	F2A1E1010067	25V 100U	1	
C4019	F2A1V100A534	35V 10U	1	
C4021	F2A1V100A534	35V 10U	1	
C4023	F2A1H1R0A638	50V 1U	1	
C4024	F2A1E1010067	25V 100U	1	
C4025	F2A1H1R0A638	50V 1U	1	
C4027	F2A1V100A534	35V 10U	1	
C4028	F2A1V100A534	35V 10U	1	
C4033	F2A1C220B173	16V 22P	1	
C4034	F2A1C220B173	16V 22P	1	
C4055	F1H1C104A008	16V 0.1U	1	
C4056	F2A1C471A628	16V 470U	1	
C4057	ECJ2VC1H330J	50V 33P	1	
C4059	ECQV1H104JL3	50V 0.1U	1	
C4060	ECJ2VC1H330J	50V 33P	1	
C4061	F1H1C104A008	16V 0.1U	1	
C4062	F2A1C221A637	16V 220U	1	
C4063	F2A1C220B173	16V 22P	1	
C4064	F2A1C220B173	16V 22P	1	
C4065	F1H1C104A008	16V 0.1U	1	
C4067	F2A1E2210050	25V 220U	1	
C4070	F2A1C221A637	16V 220U	1	
C4072	F2A1C221A637	16V 220U	1	
C4082	ECJ2VC1H330J	50V 33P	1	EPS,EPK
C4082	ECJ2VC1H561J	50V 560P	1	ECS,ECK,EGS,EGK
C4083	ECJ2VC1H330J	50V 33P	1	EPS,EPK
C4083	ECJ2VC1H561J	50V 560P	1	ECS,ECK,EGS,EGK
C4092	F2A1C221A637	16V 220U	1	
C4901	F2A0J470A599	6.3V 47U	1	
C4902	F1H1C104A008	16V 0.1U	1	
C4903	F2A1E4700048	25V 47U	1	
C4904	F1H1C104A008	16V 0.1U	1	
C7301	F1H1C104A042	16V 0.1U	1	EPS,EPK,ECS,ECK
C7301	F1H1H1030006	50V 0.01U	1	EGS,EGK
C7303	ECA1CAK101XB	16V 100U	1	
C7304	F1H1C104A008	16V 0.1U	1	EGS,EGK
C7305	ECA1CAK101XB	16V 100U	1	EPS,EPK,ECS,ECK
C7306	F1H1H1030006	50V 0.01U	1	EPS,EPK,ECS,ECK
C7307	ECJ1VC1H100D	50V 10P	1	EPS,EPK,ECS,ECK
C7308	ECJ1VC1H100D	50V 10P	1	EPS,EPK,ECS,ECK
C7309	ECJ1VB1H152K	50V 1500P	1	EGS,EGK
C7309	F1H1H1010005	50V 100P	1	EPS,EPK,ECS,ECK
C7310	ECJ1VB1H152K	50V 1500P	1	EGS,EGK
C7310	F1H1H1010005	50V 100P	1	EPS,EPK,ECS,ECK
C7311	F1H1H1010005	50V 100P	1	ECS,ECK
C7312	F2A1V100A384	35V 10U	1	
C7313	F2A1V100A384	35V 10U	1	
C7314	F1H1C104A008	16V 0.1U	1	EPS,EPK,ECS,ECK
C7315	ECJ1VB1A474K	10V 0.47U	1	EGS,EGK
C7316	F1H1H472A219	50V 4.7U	1	EGS,EGK

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7317	ECA1CAK470XB	16V 47U	1	
C7318	ECA1CAK100XB	16V 10U	1	ECS,ECK
C7323	F1H1H1020005	50V 0.001U	1	EPS,EPK,ECS,ECK
C7324	F1H1C104A008	16V 0.1U	1	EPS,EPK,ECS,ECK
C7324	F1H1H1030006	50V 0.01U	1	EGS,EGK
C7325	F1H1H1030006	50V 0.01U	1	EGS,EGK
C7326	ECJ1VB1A474K	10V 0.47U	1	EGS,EGK
C7327	ECJ1VB1H123K	50V 0.012U	1	EGS,EGK
C7328	ECJ1VC1H681J	50V 680P	1	EGS,EGK
C7329	D0YBR0000020	1/10W 0	1	
C7330	D0GB822JA057	1/10W 8.2K	1	EPS,EPK,ECS,ECK
C7330	ECJ1VC1H681J	50V 680P	1	EGS,EGK
C7331	ECJ1VB1H123K	50V 0.012U	1	EGS,EGK
C7332	F1H1C104A008	16V 0.1U	1	EPS,EPK,ECS,ECK
C7333	ECJ1VB1A474K	10V 0.47U	1	EGS,EGK
C7333	F1H1C104A042	16V 0.1U	1	EPS,EPK,ECS,ECK
C7334	ECA1HAK2R2XB	50V 2.2U	1	EPS,EPK,ECS,ECK
C7335	F1H1C104A008	16V 0.1U	1	EPS,EPK,ECS,ECK
C7335	F1H1H1030006	50V 0.01U	1	EGS,EGK
C7336	F1H1C104A042	16V 0.1U	1	EGS,EGK
C7337	ECJ1VB1A474K	10V 0.47U	1	EGS,EGK
C7338	ECJ1VB1A474K	10V 0.47U	1	EGS,EGK
C7339	F1H1H9R0A735	50V 9P	1	EGS,EGK
C7340	F1H1C104A042	16V 0.1U	1	
C7401	F2A1C471A628	16V 470U	1	
C7402	F1H1H1030006	50V 0.01U	1	
C7404	ECJ1VB1A105K	10V 1U	1	
C7406	ECJ1VB1A105K	10V 1U	1	
C7407	F1H1C104A042	16V 0.1U	1	
C7412	ECJ1VB1A105K	10V 1U	1	
C7413	ECJ1VB1A105K	10V 1U	1	
C7414	ECJ1VB1A105K	10V 1U	1	
C7415	ECJ3YB1C105K	16V 1U	1	
C7417	F1H1C104A042	16V 0.1U	1	
C7418	F2A0J221A458	6.3V 220U	1	
C7419	F1H0J1050012	6.3V 1U	1	
C7439	F1H1C104A042	16V 0.1U	1	
C7501	F1J0J475A008	6.3V 4.7U	1	
C7502	F1H1H1010005	50V 100P	1	
C7503	F1J0J475A008	6.3V 4.7U	1	
C7504	F1H1C104A042	16V 0.1U	1	
C7505	F1H1C104A042	16V 0.1U	1	
C7507	F1H1C104A042	16V 0.1U	1	
C7509	F1H1C104A042	16V 0.1U	1	
C7510	F1H1C104A042	16V 0.1U	1	
C7511	F1H1H1010005	50V 100P	1	
C7512	F1H1C104A042	16V 0.1U	1	
C7513	F2A1V390A386	35V 39U	1	
C7514	F1H1H1030006	50V 0.01U	1	
C7516	ECJ1VC1H180J	50V 18P	1	
C7517	ECJ1VC1H180J	50V 18P	1	
C7518	ECJ1VC1H220J	50V 22P	1	
C7519	ECJ1VC1H180J	50V 18P	1	
C7520	F1H1C104A042	16V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7522	F1H1H1010005	50V 100P	1	
C7523	F1H1H1030006	50V 0.01U	1	
C7524	F1H1C104A042	16V 0.1U	1	
C7528	F1H1C104A042	16V 0.1U	1	
C7531	ECJ1VC1H100D	50V 10P	1	
C7532	ECJ1VC1H100D	50V 10P	1	
C7534	F1H1H1030006	50V 0.01U	1	
C7541	F1H1H4700004	50V 47P	1	
C7542	F1H1C104A042	16V 0.1U	1	
C7543	F1H1H4700004	50V 47P	1	
C7544	F1H1C104A042	16V 0.1U	1	
C7546	F1H0J1050012	6.3V 1U	1	
C7547	F1H0J1050012	6.3V 1U	1	
C7551	F1H1C104A042	16V 0.1U	1	
C7552	ECJ1VC1H221J	50V 220P	1	
C7553	ECJ1VC1H221J	50V 220P	1	
C7554	F1H1H1030006	50V 0.01U	1	
C7555	F1H1H1030006	50V 0.01U	1	
C7556	F1H1H1030006	50V 0.01U	1	
C7557	F1H1H1030006	50V 0.01U	1	
C7558	F1H1H1030006	50V 0.01U	1	
C7565	F2A1C121A453	16V 120P	1	
C7569	ECQB1H392KF3	50V 3900P	1	
C7570	F2A1V560A387	35V 56U	1	
C7571	F2A1H100A454	50V 10U	1	
C7572	F2A1C121A453	16V 120P	1	
C7573	F2A1H100A454	50V 10U	1	
C7577	F1H1C104A042	16V 0.1U	1	
C7578	F2A0J470A012	6.3V 47U	1	
C7579	F2A0J470A012	6.3V 47U	1	
C7584	F4D55473A013	5.5V 0.047U	1	
C7587	F1H0J1050012	6.3V 1U	1	
C7588	F1H1H1030006	50V 0.01U	1	
C7590	F1H1C104A042	16V 0.1U	1	
C7592	F2A0J470A245	6.3V 47U	1	
C7593	F2A1C121A453	16V 120P	1	
D3901	MA2C165001VT	DIODE	1	
D4001	MA2C165001VT	DIODE	1	
D4005	MA3Z142D0LG	DIODE	1	
D4006	MA3Z142D0LG	DIODE	1	
D7403	MA2C165001VT	DIODE	1	
D7501	B0BA03600021	DIODE	1	
D7502	B0ACCK000005	DIODE	1	
D7504	MAZ4220NLF	DIODE	1	
D7505	B0AADM000003	DIODE	1	
D7506	B0AADM000003	DIODE	1	
D7507	B0JAMD000026	DIODE	1	
D7508	MAZ4180NHF	DIODE	1	
D7509	B0JDCE000002	DIODE	1	
D7510	MA2C165001VT	DIODE	1	
DP7501	A2BD00000145	DISPLAY TUBE	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
IC1505	C0CBCBC00174	IC	1	
IC1506	C0DAEYH00002	IC	1	
IC1507	C0CBCDD00027	IC	1	
IC1510	C0CBCDG00006	IC	1	
IC1520	C0CBCDC00052	IC	1	
IC1521	C0CBCBD00048	IC	1	
IC1522	C0EBJ0000143	IC	1	
IC3001	C1AB00002379	IC	1	
IC4009	C0ABBB000216	IC	1	
IC4011	C0DBAHD00013	IC	1	
IC4012	C0ABBB000118	IC	1	
IC4901	B3ZAZ0000017	IC	1	
IC7301	C0ZBZ0001081	IC	1	EGS,EGK
IC7301	C1AB00002225	IC	1	EPS,EPK,ECS,ECK
IC7302	C0EAH0000051	IC	1	EPS,EPK,ECS,ECK
IC7401	C0CBCYG00004	IC	1	
IC7402	C0CBCDC00052	IC	1	
IC7403	C0CBCDD00025	IC	1	
IC7404	RFKFM6016KT	IC	1	(PAVC-CSG)
IC7501	C2CBJG000713	IC	1	
IC7502	C0EBE0000504	IC	1	
IC7504	C0HBB0000044	IC	1	
IC7505	C0EBJ0000336	IC	1	
IC7507	C0ABBA000073	IC	1	
IP1501	K5H302100004	IC PROTECTOR	1	⚠
IP7501	K5H7512A0010	IC PROTECTOR	1	⚠
IR7501	PNA4618M09VT	REMOTE SENSOR	1	
JK3001	K1U822B00003	JACK,OUT,AV4 IN	1	
JK3002	K2HE1YYB0002	JACK,AV3	1	
JK3901	K1FB242B0005	JACK,AV1,AV2	1	
JK3903	K2HA306B0085	JACK,COMPONENT VIDEO OUT	1	
JW7501	REZD0019	MAIN/FRONT CABLE UNIT	1	
K7303	D0YBR0000020	1/10W 0	1	EPS,EPK,ECS,ECK
K7306	D0YBR0000020	1/10W 0	1	EGS,EGK
K7308	D0YBR0000020	1/10W 0	1	
K7501	D0YBR0000020	1/10W 0	1	
K7503	D0YBR0000020	1/10W 0	1	
K7504	D0YBR0000020	1/10W 0	1	
L1505	G0A100HA0023	COIL 10UH	1	
L4901	G0C220KA0065	COIL 22UH	1	
L7303	G0C1R0JA0019	COIL 1UH	1	EPS,EPK,ECS,ECK
L7304	G0C2R2JA0019	COIL 2.2UH	1	EPS,EPK,ECS,ECK
L7304	G0C470JA0019	COIL 47UH	1	EGS,EGK
L7401	G0A220GA0026	COIL 22UH	1	
L7402	G0A220GA0026	COIL 22UH	1	
L7501	G0C390JA0055	COIL 39UH	1	
L7502	G0C220JA0019	COIL 22UH	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB1502	J0JKB0000003	COIL	1	
LB1503	J0JKB0000003	COIL	1	
LB1504	J0JKB0000003	COIL	1	
LB1506	J0JKB0000003	COIL	1	
LB3001	J0JGC0000020	COIL	1	
LB3002	J0JGC0000020	COIL	1	
LB3003	J0JGC0000020	COIL	1	
LB3005	J0JBC0000011	COIL	1	
LB3006	J0JBC0000019	COIL	1	
LB3007	J0JBC0000011	COIL	1	
LB3008	J0JBC0000019	COIL	1	
LB3009	D0YBR0000020	1/10W 0	1	
LB3010	D0YBR0000020	1/10W 0	1	
LB3011	D0YBR0000020	1/10W 0	1	
LB3012	J0JBC0000011	COIL	1	
LB3013	J0JBC0000011	COIL	1	
LB3907	J0JBC0000011	COIL	1	
LB3908	J0JBC0000011	COIL	1	
LB3911	J0JGC0000020	COIL	1	
LB3912	J0JBC0000011	COIL	1	
LB3913	J0JBC0000011	COIL	1	
LB7301	J0JCC0000124	COIL	1	EPS,EPK,ECS,ECK
LB7302	J0JCC0000124	COIL	1	EPS,EPK,ECS,ECK
LB7303	J0JCC0000080	COIL	1	EPS,EPK,ECS,ECK
LB7304	J0JHC0000032	COIL	1	
LB7401	J0JGC0000020	COIL	1	
LB7402	J0JKB0000012	COIL	1	
LB7403	J0JKB0000012	COIL	1	
LB7404	J0JKB0000012	COIL	1	
LB7405	J0JKB0000012	COIL	1	
LB7406	J0JCC0000164	COIL	1	
LB7407	J0JKB0000012	COIL	1	
LB7408	J0JCC0000164	COIL	1	
LB7409	J0JKB0000012	COIL	1	
LB7410	J0JCC0000103	COIL	1	
LB7411	J0JCC0000164	COIL	1	
LB7412	J0JCC0000164	COIL	1	
LB7413	J0JCC0000164	COIL	1	
LB7414	J0JCC0000164	COIL	1	
LB7415	J0JCC0000103	COIL	1	
LB7416	J0JCC0000164	COIL	1	
LB7417	J0JCC0000103	COIL	1	
LB7418	J0JCC0000103	COIL	1	
LB7419	J0JCC0000103	COIL	1	
LB7420	J0JCC0000164	COIL	1	
LB7501	D0YBR0000020	1/10W 0	1	
LB7502	D0YBR0000020	1/10W 0	1	
LB7507	D0YBR0000020	1/10W 0	1	
LB7508	D0YBR0000020	1/10W 0	1	
LB7509	J0JCC0000060	COIL	1	
LB7510	D0YBR0000020	1/10W 0	1	
LB7515	D0YBR0000020	1/10W 0	1	
LB7516	D0YBR0000020	1/10W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
LB7517	D0YBR0000020	1/10W 0	1	
P1501	K1KA23A00003	CONNECTOR(23P)	1	
P1503	K1KA04AA0180	CONNECTOR(4P)	1	
P7402	K1KA88A00002	CONNECTOR(88P)	1	
PP7401	K1KA18AA0288	CONNECTOR(18P)	1	
Q1501	B1DHED000008	TRANSISTOR	1	
Q1509	B1DHED000008	TRANSISTOR	1	
Q4006	2SD132800L	TRANSISTOR	1	
Q4007	2SD132800L	TRANSISTOR	1	
Q4008	2SD132800L	TRANSISTOR	1	
Q4009	2SD132800L	TRANSISTOR	1	
Q7401	2SD1819ARL	TRANSISTOR	1	
Q7402	2SD1819A0L	TRANSISTOR	1	
Q7501	2SB1218A0L	TRANSISTOR	1	
Q7502	2SD1819A0L	TRANSISTOR	1	
Q7503	2SB1218A0L	TRANSISTOR	1	
Q7504	2SD1819A0L	TRANSISTOR	1	
Q7505	2SD0601A0L	TRANSISTOR	1	
Q7505 01	2SD0601A0L	TRANSISTOR	1	
Q7506	2SD0601A0L	TRANSISTOR	1	
Q7506 02	2SD0601A0L	TRANSISTOR	1	
Q7507	2SD0601A0L	TRANSISTOR	1	
Q7507 03	2SD0601A0L	TRANSISTOR	1	
Q7508	2SD1819A0L	TRANSISTOR	1	
Q7510	B1BABK000001	TRANSISTOR	1	
Q7511	B1ABMD000004	TRANSISTOR	1	
QR1501	B1GBCFNN0009	TRANSISTOR	1	
QR1503	B1GBCFNN0009	TRANSISTOR	1	
QR4002	B1GDCFJJ0008	DIGITAL TRANSISTOR	1	
QR4003	B1GBCFJJ0007	TRANSISTOR	1	
QR4004	B1GBCFJJ0007	TRANSISTOR	1	
QR7401	B1GBCFNN0009	TRANSISTOR	1	
QR7402	B1GDCFLL0012	TRANSISTOR	1	
QR7403	B1GBCFJA0006	TRANSISTOR	1	
QR7404	B1GBCFJA0006	TRANSISTOR	1	
QR7507	B1GBCFNA0010	TRANSISTOR	1	
QR7508	B1GBCFJN0009	TRANSISTOR	1	
R1502	D0GB103JA057	1/10W 10K	1	
R1505	D0GB823JA057	1/10W 82K	1	
R1506	D0GB222JA057	1/10W 2.2K	1	
R1507	D0GB822JA057	1/10W 8.2K	1	
R1509	ERJ3RBD393V	1/16W 39K	1	
R1510	ERJ3RBD113V	1/16W 11K	1	
R1511	ERJ3RBD152V	1/16W 1.5K	1	
R1518	D0GB223JA057	1/10W 22K	1	
R1519	D0GB223JA057	1/10W 22K	1	
R3001	D0GB102JA057	1/10W 1K	1	
R3003	D0GB102JA057	1/10W 1K	1	
R3004	D0GB102JA057	1/10W 1K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3006	D0YBR0000020	1/10W 0	1	
R3007	D0GB330JA057	1/10W 33	1	
R3008	D0GB102JA057	1/10W 1K	1	
R3009	D0GB104JA057	1/10W 100K	1	
R3054	D0GB750JA057	1/10W 75	1	
R3055	D0GB750JA057	1/10W 75	1	
R3056	D0GB750JA057	1/10W 75	1	
R3057	D0GB750JA057	1/10W 75	1	
R3058	D0GB750JA057	1/10W 75	1	
R3059	D0GB750JA057	1/10W 75	1	
R3060	D0GB750JA057	1/10W 75	1	
R3061	D0GB750JA057	1/10W 75	1	
R3062	D0GB750JA057	1/10W 75	1	
R3901	D1BB75R0A010	2W 75	1	
R3902	D1BB75R0A010	2W 75	1	
R3903	D1BB75R0A010	2W 75	1	
R3912	D0GB103JA057	1/10W 10K	1	
R3913	D0GB103JA057	1/10W 10K	1	
R3914	D0GB471JA057	1/10W 470	1	
R3918	D0GB471JA057	1/10W 470	1	
R3919	D1BB75R0A010	2W 75	1	
R3920	D1BB75R0A010	2W 75	1	
R3921	D1BB75R0A010	2W 75	1	
R3922	D0GB471JA057	1/10W 470	1	
R3923	D0GB471JA057	1/10W 470	1	
R3924	ERDS2TJ221T	1/4W 220	1	
R3925	D1BB75R0A010	2W 75	1	
R3926	D1BB75R0A010	2W 75	1	
R3927	D1BB75R0A010	2W 75	1	
R3928	D0GB750JA057	1/10W 75	1	
R3929	D0GB750JA057	1/10W 75	1	
R3930	D0GB750JA057	1/10W 75	1	
R3932	D0GB750JA057	1/10W 75	1	
R3934	D0GB750JA057	1/10W 75	1	
R3935	D0GB750JA057	1/10W 75	1	
R3975	D0GB101JA057	1/10W 100	1	
R3976	D0GB101JA057	1/10W 100	1	
R3983	D0GB103JA057	1/10W 10K	1	
R3984	D0GB103JA057	1/10W 10K	1	
R3987	D0GB473JA057	1/10W 47K	1	
R3988	D0GB102JA057	1/10W 1K	1	
R3989	D0GB102JA057	1/10W 1K	1	
R3990	D0GB473JA057	1/10W 47K	1	
R3991	D0GB473JA057	1/10W 47K	1	
R3992	D0GB102JA057	1/10W 1K	1	
R3993	D0GB102JA057	1/10W 1K	1	
R3994	D0GB473JA057	1/10W 47K	1	
R4003	D0GB821JA057	1/10W 820	1	
R4004	D0GB103JA057	1/10W 10K	1	
R4005	D0GB821JA057	1/10W 820	1	
R4006	D0GB823JA057	1/10W 82K	1	
R4007	D0GB823JA057	1/10W 82K	1	
R4008	D0GB823JA057	1/10W 82K	1	
R4010	D0GB473JA057	1/10W 47K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R4011	D0GB473JA057	1/10W 47K	1	
R4013	D0GB823JA057	1/10W 82K	1	
R4046	D0HB682ZA002	1/16W 6.8K	1	
R4047	D0HB682ZA002	1/16W 6.8K	1	
R4055	D0HB123ZA002	1/16W 12K	1	
R4057	D0HB123ZA002	1/16W 12K	1	
R4066	D0HB103ZA002	1/10W 10K	1	
R4067	D0HB103ZA002	1/10W 10K	1	
R4071	D0GB473JA057	1/10W 47K	1	
R4074	D0GB473JA057	1/10W 47K	1	
R4076	D0GB821JA057	1/10W 820	1	
R4077	D0GB101JA057	1/10W 100	1	
R4078	D0GB272JA057	1/10W 2.7K	1	
R4079	D0GB272JA057	1/10W 2.7K	1	
R4080	D0GB101JA057	1/10W 100	1	
R4081	D0GB821JA057	1/10W 820	1	
R4088	D0GB272JA057	1/10W 2.7K	1	
R4089	D0GB272JA057	1/10W 2.7K	1	
R4090	D0GB121JA057	1/10W 120	1	
R4093	D0GB121JA057	1/10W 120	1	
R4094	D0GB223JA057	1/10W 22K	1	
R7304	D0GB101JA057	1/10W 100	1	EPS,EPK,ECS,ECK
R7305	ERJ3GEYF101V	1/10W 100	1	EGS,EGK
R7306	D1BB39010002	2W 390	1	EGS,EGK
R7307	D0GB472JA057	1/10W 4.7K	1	EGS,EGK
R7307	D0YBR0000020	1/10W 0	1	EPS,EPK,ECS,ECK
R7308	D0GB752JA057	1/10W 7.5K	1	EGS,EGK
R7311	D0GB221JA057	1/10W 220	1	ECS,ECK
R7312	ERJ3GEYF221V	1/10W 220	1	EPS,EPK,ECS,ECK
R7312	ERJ3GEYF682V	1/10W 6.8K	1	EGS,EGK
R7313	ERJ3GEYF221V	1/10W 220	1	EPS,EPK,ECS,ECK
R7313	ERJ3GEYF682V	1/10W 6.8K	1	EGS,EGK
R7314	D0YBR0000020	1/10W 0	1	ECS,ECK
R7315	D0YBR0000020	1/10W 0	1	ECS,ECK
R7317	D0YBR0000020	1/10W 0	1	
R7318	D1BB33010002	2W 33	1	EGS,EGK
R7319	D0YBR0000020	1/10W 0	1	
R7320	D1BB33010002	2W 33	1	EGS,EGK
R7321	D0GB562JA057	1/10W 5.6K	1	EGS,EGK
R7322	D0YBR0000020	1/10W 0	1	EPS,EPK,ECS,ECK
R7323	D0GB562JA057	1/10W 5.6K	1	EGS,EGK
R7324	D0GB221JA057	1/10W 220	1	
R7325	D0GB221JA057	1/10W 220	1	
R7326	D0GB122JA057	1/10W 1.2K	1	EGS,EGK
R7326	D0YBR0000020	1/10W 0	1	EPS,EPK,ECS,ECK
R7401	D0GB104JA057	1/10W 100K	1	
R7402	D0GB103JA057	1/10W 10K	1	
R7403	D0GB153JA057	1/10W 15K	1	
R7404	D0GB223JA057	1/10W 22K	1	
R7405	ERDS2TJ471T	1/4W 470	1	
R7406	D0GB474JA057	1/10W 470K	1	
R7407	D0GB103JA057	1/10W 10K	1	
R7408	D0GB153JA057	1/10W 15K	1	
R7409	D0GB101JA057	1/10W 100	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7410	D0GB821JA057	1/10W 820	1	
R7411	D0GB472JA057	1/10W 4.7K	1	
R7412	D0GB472JA057	1/10W 4.7K	1	
R7414	D0GB472JA057	1/10W 4.7K	1	
R7444	ERJ3RED300V	1/16W 30	1	
R7445	ERJ3RBD682V	1/16W 6.8K	1	
R7446	ERJ3RBD202V	1/16W 2K	1	
R7448	D0GB182JA057	1/10W 1.8K	1	
R7501	D0GB102JA057	1/10W 1K	1	
R7502	D0GB392JA057	1/10W 3.9K	1	
R7503	D0GB104JA057	1/10W 100K	1	
R7504	D0GB102JA057	1/10W 1K	1	
R7505	D1BB1502A010	2W 1.5K	1	
R7506	D0GB104JA057	1/10W 100K	1	
R7507	D1BB15010002	2W 150	1	
R7508	ERJ3GEYF562V	1/10W 5.6K	1	
R7509	D0GB101JA057	1/10W 100	1	
R7510	D0GB101JA057	1/10W 100	1	
R7516	D0GB220JA057	1/10W 22	1	ECS,ECK
R7517	D0GB472JA057	1/10W 4.7K	1	
R7518	ERJ3RBD273V	1/16W 27K	1	
R7520	D0GB103JA057	1/10W 10K	1	
R7521	D0GB103JA057	1/10W 10K	1	
R7522	D0GB473JA057	1/10W 47K	1	
R7523	D0YBR0000020	1/10W 0	1	
R7527	D0GB101JA057	1/10W 100	1	
R7528	D0GB101JA057	1/10W 100	1	
R7529	D0GB101JA057	1/10W 100	1	
R7530	D0GB223JA057	1/10W 22K	1	
R7531	D0GB104JA057	1/10W 100K	1	
R7532	D0GB332JA057	1/10W 3.3K	1	
R7533	D0YBR0000020	1/10W 0	1	
R7534	D0GB103JA057	1/10W 10K	1	
R7535	D0GB101JA057	1/10W 100	1	
R7536	D0GB101JA057	1/10W 100	1	
R7537	D0GB101JA057	1/10W 100	1	
R7543	D0GB101JA057	1/10W 100	1	
R7544	D0GB101JA057	1/10W 100	1	
R7548	D0GB472JA057	1/10W 4.7K	1	
R7549	D0GB472JA057	1/10W 4.7K	1	
R7558	D0GB202JA057	1/10W 2K	1	
R7559	D0GB202JA057	1/10W 2K	1	
R7561	D0GB101JA057	1/10W 100	1	
R7562	D0GB101JA057	1/10W 100	1	
R7564	D0GB101JA057	1/10W 100	1	
R7565	D0GB101JA057	1/10W 100	1	
R7566	D0GB101JA057	1/10W 100	1	
R7567	D0GB101JA057	1/10W 100	1	
R7568	D0GB101JA057	1/10W 100	1	
R7570	D0GB392JA057	1/10W 3.9K	1	
R7571	D0GB101JA057	1/10W 100	1	
R7572	D0GB101JA057	1/10W 100	1	
R7574	D0GB223JA057	1/10W 22K	1	
R7575	D0GB101JA057	1/10W 100	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R7576	D0GB102JA057	1/10W 1K	1	
R7577	D0GB103JA057	1/10W 10K	1	
R7579	D0GB223JA057	1/10W 22K	1	
R7582	D0GB104JA057	1/10W 100K	1	
R7583	D0GB472JA057	1/10W 4.7K	1	
R7584	D0GB473JA057	1/10W 47K	1	
R7585	D0GB225JA057	1/10W 220K	1	
R7586	D0GB273JA057	1/10W 27K	1	
R7587	D0GB224JA057	1/10W 220K	1	
R7588	D0GB104JA057	1/10W 100K	1	
R7589	D0GB221JA057	1/10W 220	1	
R7590	D0GB104JA057	1/10W 100K	1	
R7597	D0GB822JA057	1/10W 8.2K	1	
R7598	D0GB822JA057	1/10W 8.2K	1	
R7599	D0GB822JA057	1/10W 8.2K	1	
R7600	D0GB103JA057	1/10W 10K	1	
R7601	D0GB102JA057	1/10W 1K	1	
R7606	ERJ3GEYF393V	1/10W 39K	1	
R7607	D0GB101JA057	1/10W 100	1	
R7608	ERJ3GEYF433V	1/10W 43K	1	
R7612	D0GB562JA057	1/10W 5.6K	1	
R7614	D0GB470JA057	1/10W 47	1	
R7615	D0GB473JA057	1/10W 47K	1	
R7616	D0GB473JA057	1/10W 47K	1	
R7617	ERDS2TJ271T	1/4W 270	1	
R7619	D0GB103JA057	1/10W 10K	1	
R7621	D0GB104JA057	1/10W 100K	1	
R7623	D0GB181JA057	1/10W 180	1	
R7624	D0GB103JA057	1/10W 10K	1	
R7625	D0GB103JA057	1/10W 10K	1	
R7626	D0GB821JA057	1/10W 820	1	
R7627	D0GB303JA057	1/10W 30K	1	
R7639	D0GB272JA057	1/10W 2.7K	1	
R7640	D0GB272JA057	1/10W 2.7K	1	
R7641	D0GB272JA057	1/10W 2.7K	1	
R7642	D0GB562JA057	1/10W 5.6K	1	
R7643	ERJ3GEYJ163V	1/10W 16K	1	
R7644	D0GB562JA057	1/10W 5.6K	1	
R7648	ERDS2TJ470T	1/4W 47	1	
R7651	D0GB472JA057	1/10W 4.7K	1	
R7653	D0GB101JA057	1/10W 100	1	
R7655	D0GB101JA057	1/10W 100	1	
S7501	EVQ11A04M	SWITCH,EXT LINK	1	
S7502	EVQ11A04M	SWITCH,CH DOWN	1	
S7503	EVQ11A04M	SWITCH,CH UP	1	
S7504	EVQ11A04M	SWITCH,OPEN/CLOSE	1	
S7505	EVQ11A04M	SWITCH,SELECT	1	
S7506	EVQ11A04M	SWITCH,STOP	1	
S7507	EVQ11A04M	SWITCH,PLAY	1	
S7508	EVQ11A04M	SWITCH,REC	1	
T7501	G4D1A0000117	TRANSFORMER	1	⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W501	D0YBR0000020	1/10W 0	1	
W502	D0YBR0000020	1/10W 0	1	
W503	D0YBR0000020	1/10W 0	1	
W504	D0YBR0000020	1/10W 0	1	
W505	D0YBR0000020	1/10W 0	1	
W506	D0YBR0000020	1/10W 0	1	
W507	D0YBR0000020	1/10W 0	1	
W508	D0YBR0000020	1/10W 0	1	
W509	D0YBR0000020	1/10W 0	1	
W510	D0YBR0000020	1/10W 0	1	
W511	D0YBR0000020	1/10W 0	1	
W512	D0YBR0000020	1/10W 0	1	
W513	D0YBR0000020	1/10W 0	1	
W514	D0YBR0000020	1/10W 0	1	
W515	D0YBR0000020	1/10W 0	1	
W516	D0YBR0000020	1/10W 0	1	
W517	D0YBR0000020	1/10W 0	1	
W518	D0YBR0000020	1/10W 0	1	
W519	D0YBR0000020	1/10W 0	1	
W520	D0YBR0000020	1/10W 0	1	
W521	D0YBR0000020	1/10W 0	1	
W522	D0YBR0000020	1/10W 0	1	
W523	D0YBR0000020	1/10W 0	1	
W524	D0YBR0000020	1/10W 0	1	
W525	D0YBR0000020	1/10W 0	1	
W527	D0YBR0000020	1/10W 0	1	
W528	D0YBR0000020	1/10W 0	1	
W529	ERJ6GEY0R00Z	1/8W 0	1	
W530	ERJ6GEY0R00Z	1/8W 0	1	
W531	ERJ6GEY0R00Z	1/8W 0	1	
W532	ERJ6GEY0R00Z	1/8W 0	1	
W533	ERJ6GEY0R00Z	1/8W 0	1	
W534	D0YBR0000020	1/10W 0	1	
W535	D0YBR0000020	1/10W 0	1	
W536	D0YBR0000020	1/10W 0	1	
W537	D0YBR0000020	1/10W 0	1	
W538	D0YBR0000020	1/10W 0	1	
X7301	H0D245500016	CRYSTAL OSCILLATOR	1	EPS,EPK,ECS,ECK
X7301	H0H400400006	CRYSTAL OSCILLATOR	1	EGS,EGK
X7501	H0D100500018	CRYSTAL OSCILLATOR	1	
X7502	H0A327200108	CRYSTAL OSCILLATOR	1	
■	VEP07A91D	TUNER P.C.B.		(RTL)EPS,EPK
■	VEP07A91B	TUNER P.C.B.		(RTL)ECS,ECK
■	VEP07A91A	TUNER P.C.B.		(RTL)EGS,EGK
C7809	F1H1H1030006	50V 0.01U	1	
C7813	F2A0J470A599	6.3V 47U	1	
C7814	F2A1H2200032	50V 22U	1	
C7817	F2A0J470A599	6.3V 47U	1	
C7818	F1H1H330A736	50V 33P	1	
C7819	F1H1H330A736	50V 33P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C7820	F1H1C104A042	16V 0.1U	1	
C7821	F1H1H1030006	50V 0.01U	1	
C7822	F1H1H1030006	50V 0.01U	1	
C7824	F2A0J470A599	6.3V 47U	1	
C7825	F1H1H1010005	50V 100P	1	EPS,EPK
C7828	F1H1H1030006	50V 0.01U	1	
C7838	F2A1E4700048	25V 47U	1	ECS,ECK
D7802	B0BA03000015	DIODE	1	
K7808	D0YBR0000020	1/10W 0	1	
K7809	D0YBR0000020	1/10W 0	1	ECS,ECK,EGS,EGK
K7810	D0YBR0000020	1/10W 0	1	
LB7802	J0JHC0000032	COIL	1	
LB7803	J0JHC0000032	COIL	1	
LB7804	J0JHC0000032	COIL	1	
PS7801	K1KB18B00012	CONNECTOR(18P)	1	
Q7802	2SB1218A0L	TRANSISTOR	1	EPS,EPK
R7811	ERDS2TJ102T	1/4W 1K	1	
R7812	ERJ6GEYJ681V	1/8W 680	1	EPS,EPK
R7815	D0GB471JA057	1/10W 470	1	
R7816	D0GB471JA057	1/10W 470	1	
R7818	D0GB221JA057	1/10W 220	1	EPS,EPK
R7820	D0GB102JA057	1/10W 1K	1	EPS,EPK
R7844	ERJ6GEYJ681V	1/8W 680	1	EPS,EPK
R7845	D0YBR0000020	1/10W 0	1	ECS,ECK
R7846	D0GB562JA057	1/10W 5.6K	1	ECS,ECK
TU7801	ENGF7501GF	TUNER	1	ECS,ECK
TU7801	ENGF7502GF	TUNER	1	EPS,EPK
TU7801	ENGF7503GF	TUNER	1	EGS,EGK
W501	ERJ6GEY0R00Z	1/8W 0	1	
W502	D0YBR0000020	1/10W 0	1	
W503	ERJ6GEY0R00Z	1/8W 0	1	
W504	ERJ6GEY0R00Z	1/8W 0	1	
W505	ERJ6GEY0R00Z	1/8W 0	1	
W506	D0YBR0000020	1/10W 0	1	
W507	D0YBR0000020	1/10W 0	1	
W508	ERJ6GEY0R00Z	1/8W 0	1	
W509	D0YBR0000020	1/10W 0	1	
W510	D0YBR0000020	1/10W 0	1	
W511	D0YBR0000020	1/10W 0	1	
W512	D0YBR0000020	1/10W 0	1	
W513	D0YBR0000020	1/10W 0	1	
W514	ERJ6GEY0R00Z	1/8W 0	1	
W515	D0YBR0000020	1/10W 0	1	
W516	D0YBR0000020	1/10W 0	1	
W517	ERJ8GEY0R00V	1/4W 0	1	
W518	ERJ6GEY0R00Z	1/8W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
W519	D0YBR0000020	1/10W 0	1	
W520	D0YBR0000020	1/10W 0	1	
W521	ERJ8GEY0R00V	1/4W 0	1	
W523	ERJ6GEY0R00Z	1/8W 0	1	
W524	D0YBR0000020	1/10W 0	1	
W525	D0YBR0000020	1/10W 0	1	
W526	D0YBR0000020	1/10W 0	1	
W527	D0YBR0000020	1/10W 0	1	
W529	D0YBR0000020	1/10W 0	1	
W530	ERJ6GEY0R00Z	1/8W 0	1	
W531	ERJ6GEY0R00Z	1/8W 0	1	
W532	ERJ6GEY0R00Z	1/8W 0	1	
W533	ERJ6GEY0R00Z	1/8W 0	1	
W534	ERJ6GEY0R00Z	1/8W 0	1	
W535	D0YBR0000020	1/10W 0	1	
W536	D0YBR0000020	1/10W 0	1	
W537	ERJ6GEY0R00Z	1/8W 0	1	
W538	ERJ6GEY0R00Z	1/8W 0	1	
W539	ERJ6GEY0R00Z	1/8W 0	1	
W540	ERJ6GEY0R00Z	1/8W 0	1	
W541	ERJ6GEY0R00Z	1/8W 0	1	
W542	ERJ6GEY0R00Z	1/8W 0	1	
W543	D0YBR0000020	1/10W 0	1	
W544	D0YBR0000020	1/10W 0	1	
W545	ERJ6GEY0R00Z	1/8W 0	1	
W546	ERJ6GEY0R00Z	1/8W 0	1	
W547	D0YBR0000020	1/10W 0	1	
W548	D0YBR0000020	1/10W 0	1	
W549	D0YBR0000020	1/10W 0	1	
W550	D0YBR0000020	1/10W 0	1	
■	VEP71110A	POWER SUPPLY P.C.B.		(RTL)
C1120	ECQU2A683MLC	100V 0.068U	1	⚠
C1121	ECQU2A223MLC	100V 0.022U	1	
C1122	ECKWNA102MEV	250V 1000P	1	⚠
C1123	ECKWNA102MEV	250V 1000P	1	⚠
C1125	ECKWNA102MEV	250V 1000P	1	⚠
C1143	F2B2W4700003	450V 47U	1	
C1150	F2A1V6800002	35V 68P	1	
C1151	F1B3D102A011	2V 1000P	1	
C1152	ECJ2VC1H331J	50V 330P	1	
C1153	ECJGVB1H222K	50V 2200P	1	
C1154	ECJGVB1H102K	50V 1000P	1	
C1200	F1J1E104A081	25V 0.1U	1	
C1201	ECJ2VB1E473K	25V 0.047U	1	
C1270	F2A1C1820005	16V 1800P	1	
C1271	F2A1C1820005	16V 1800P	1	
C1272	F2A1C8210008	16V 820P	1	
C1601	F2A1E2210050	25V 220U	1	
C1602	F1J1E104A081	25V 0.1U	1	
C1603	F1J1E104A081	25V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C1604	ECJ2YB1C474K	16V 0.47U	1	
C1605	ECJ2VC1H181J	50V 180P	1	
C1606	ECJGVB1H103K	50V 0.01U	1	
C1607	F2A1A6810022	10V 680P	1	
C1608	F1J1E104A081	25V 0.1U	1	
C1701	F2A1E2210050	25V 220U	1	
C1702	F1H1C104A042	16V 0.1U	1	
C1703	F1H1C104A042	16V 0.1U	1	
C1704	F1H1C104A042	16V 0.1U	1	
C1705	ECJ1VC1H181J	50V 180P	1	
C1706	F1H1H1030006	50V 0.01U	1	
C1707	F2A0J6810007	6.3V 680P	1	
C1800	F2A1E4700048	25V 47U	1	
D1140	B0EDKT000009	DIODE	1	
D1151	B0HAGM000006	DIODE	1	
D1152	MAZ4100NMF	DIODE	1	
D1155	MAZ73000BC	DIODE	1	
D1156	MA2C165001VT	DIODE	1	
D1157	B0HADV000001	DIODE	1	
D1270	B0JBSG000010	DIODE	1	
D1601	B0JCPD000021	DIODE	1	
D1701	B0JCPD000021	DIODE	1	
D1800	MA2J11100L	DIODE	1	
F1101	K5D202BK0005	FUSE	1	
IC1150	C0DACZH00017	IC	1	
IC1200	C0DAEMB00003	IC	1	
IC1601	C0DBAZZ00132	IC	1	
IC1701	C0DBAZZ00132	IC	1	
IP1601	K5H3022A0013	IC PROTECTOR	1	⚠
L1120	G0B233D00001	COIL	1	
L1121	G0B233D00001	COIL	1	
L1270	G0A100H00025	COIL 10UH	1	
L1400	G0A100HA0023	COIL 10UH	1	
L1601	G0A150ZA0041	COIL 15UH	1	
L1701	G0A220ZA0041	COIL 22UH	1	
LB1126	ERJ6GEY0R00Z	1/8W 0	1	
LB1600	J0JHC0000048	FILTER	1	
LB1700	J0JHC0000048	FILTER	1	
P1101	K2AA2H000007	AC INLET	1	⚠
P1102	K1KB23A00004	CONNECTOR(23P)	1	
P1103	K1KA03AA0192	CONNECTOR	1	
Q1200	B3PBA0000402	PHOTO COUPLER	1	
Q1600	B1DHED000008	TRANSISTOR	1	
Q1700	B1DHDD000022	TRANSISTOR	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
QR1800	B1GDCFNN0002	TRANSISTOR	1	
QR1801	B1GBCFNN0004	TRANSISTOR	1	
R1150	ERJ6GEYJ180V	1/8W 18	1	
R1151	ERJ6GEYJ682V	1/8W 6.8K	1	
R1152	ERJ6GEYJ103V	1/8W 10K	1	
R1153	ERJ6GEYJ180V	1/8W 18	1	
R1154	ERJ6GEYG912V	1/8W 9.1K	1	
R1155	ERJ6GEYG752V	1/8W 7.5K	1	
R1156	ERJ6GEYG163V	1/8W 16K	1	
R1157	ERJ6GEYG511V	1/8W 510	1	
R1158	ERX2SJR22E	2W 22	1	
R1200	ERJ6GEYG122V	1/8W 1.2K	1	
R1201	ERJ6GEYG822V	1/8W 8.2K	1	
R1205	ERJ6GEYJ224V	1/8W 220K	1	
R1206	ERJ6GEYG242V	1/8W 2.4K	1	
R1207	ERJ6GEYJ103V	1/8W 10K	1	
R1208	ERJ6GEYJ222V	1/8W 2.2K	1	
R1209	ERJ6GEYJ102V	1/8W 1K	1	
R1210	ERJ6GEYJ102V	1/8W 1K	1	
R1601	D1BFR0240001	1/2W 0.024U	1	
R1602	ERJ6GEYJ513V	1/8W 51K	1	
R1603	ERJ6RBD202V	1/10W 2K	1	
R1604	ERJ6RBD822V	1/10W 8.2K	1	
R1605	ERJ6RBD272V	1/10W 2.7K	1	
R1701	D1BFR0240001	1/2W 0.024U	1	
R1702	D0GB513JA057	1/10W 51K	1	
R1703	D0YBR0000020	1/10W 0	1	
R1704	ERJ3RBD123V	1/16W 12K	1	
R1705	ERJ3RBD562V	1/16W 5.6K	1	
R1800	ERJ6GEYJ471V	1/8W 470	1	
R1801	ERJ6GEYJ104V	1/8W 100K	1	
R1802	ERJ6GEYJ472V	1/8W 4.7K	1	
R1803	ERJ6GEYJ103V	1/8W 10K	1	
T1150	ETS28BF1W6AD	TRANSFORMER	1	⚠
VA1110	ERZVA5V471	SURGE ABSORBER	1	⚠
ZA1103	EYF52BCY	FUSE HOLDER	2	
■	VEP73136A	SD CARD P.C.B.		(RTL)
C6801	F1H1H1030006	50V 0.01U	1	
C6802	F1H1A225A051	10V 22U	1	
LB6801	J0JHC0000032	COIL	1	
LB6802	J0JHC0000045	COIL	1	
P6801	K1NA09E00075	CONNECTOR(9P)	1	
P6802	K1MY20AA0021	CONNECTOR(20P)	1	
R6801	D0GB101JA057	1/10W 100	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R6802	D0GB220JA057	1/10W 22	1	
R6803	D0GB220JA057	1/10W 22	1	
R6804	D0GB223JA057	1/10W 22K	1	
R6805	D0GB123JA057	1/10W 12K	1	
R6807	D0GB223JA057	1/10W 22K	1	
RX6801	EXB38V220JV	RESISTOR-RESISTOR	1	
RX6802	EXB38V123JV	RESISTOR-RESISTOR	1	
■	VEP70161A	FRONT(L) P.C.B.		(RTL)
S7002	EVQ11A04M	SWITCH,POWER	1	
■	VEP73135A	DV JACK P.C.B.		(RTL)
P37001	K1KA06B00181	CONNECTOR(6P)	1	
P37002	K2HZ104B0012	CONNECTOR(104P)	1	
■		CASING/ACCESSORY/PACKING		
1	VEP70161A	FRONT(L) P.C.B.	1	(RTL)
2	VEP73135A	DV JACK P.C.B.	1	(RTL)
3	RFKB79119JT	MAIN P.C.B.	1	(RTL)EPS,EPK
3	RFKB79119HT	MAIN P.C.B.	1	(RTL)ECS,ECK
3	RFKB79119GT	MAIN P.C.B.	1	(RTL)EGS,EGK
5	RGR0365D-C1	REAR PANEL	1	EPS,EPK ⚠
5	RGR0365D-A1	REAR PANEL	1	ECS,ECK ⚠
5	RGR0365D-H	REAR PANEL	1	EGS,EGK ⚠
6	RHD30111-3	SCREW	20	
7	RHD30119-L	SCREW	14	
8	RMA1979A	DIGITAL ANGLE A	1	
9	RFKNEH55EP	RAM DIGITAL P.C.B. MODULE	1	EPS,EPK
9	RFKNEH55EC	RAM DIGITAL P.C.B. MODULE	1	ECS,ECK
9	RFKNEH56EG	RAM DIGITAL P.C.B. MODULE	1	EGS,EGK
10	RMQ1513	HEAT TRANSFER SHEET	1	
11	L6FAJDAE0001	FAN MOTOR	1	
12	RKA0144-K	FOOT RUBBER	4	
13	RMC0672	PLATE SPRING	1	
14	RMY0357	HEAT SINK	1	
15	RHD32001	SCREW	2	
16	VJF0036	NYLON RIVET	4	
17	RMG0704-W	DAMPER	4	
18	RYP1319A-K	FRONT PANEL ASS'Y 1	1	EPK
18	RYP1319A-S	FRONT PANEL ASS'Y 1	1	EPS
18	RYP1319-K	FRONT PANEL ASS'Y 1	1	ECK
18	RYP1319-S	FRONT PANEL ASS'Y 1	1	ECS
18	RYP1319F-K	FRONT PANEL ASS'Y 1	1	EGK
18	RYP1319F-S	FRONT PANEL ASS'Y 1	1	EGS
18-1	RGK1968A-Q	FL ORNAMENT	1	EPK,ECK,EGK
18-1	RGK1968-Q	FL ORNAMENT	1	EPS,ECS,EGS
18-2	RGK1971-S	REC BUTTON RING	1	
18-3	RYF0798F-K	PANEL DOOR ASS'Y	1	EPK,ECK

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
18-3	RYF0798D-S	PANEL DOOR ASS'Y	1	EPS,ECS
18-3	RYF0798G-K	PANEL DOOR ASS'Y	1	EGK
18-3	RYF0798E-S	PANEL DOOR ASS'Y	1	EGS
18-4	RKF0751A-K	TRAY DOOR	1	
18-5	VMB3410	BLINDER SPRING	1	
18-6	RHD26045	SCREW	2	
18-7	RKF0754-K	SD BLINDER	1	
18-8	RMB0841	SD LID SPRING	1	
18-9	RMR1767-K	SD CHASSIS	1	
19	RHD30113	SCREW	2	EPS,ECS,EGS
19	RHD30113-1K	SCREW	2	EPK,ECK,EGK
20	RFKV0069HDK	HDD 160GB	1	
21	RKM0552A-K	TOP CASE	1	EPK,ECK,EGK ⚠
21	RKM0552A-S	TOP CASE	1	EPS,ECS,EGS ⚠
22	RMN0857	HDD BRACKET	1	
23	RMC0625	TUNER END	2	
25	VEK0J99	HDD CABLE ASS'Y	1	
27	RMQ1555	GASKET	2	
28	VEP71110A	POWER SUPPLY P.C.B.	1	(RTL)
29	VEP07A91D	TUNER P.C.B.	1	(RTL)EPS,EPK
29	VEP07A91B	TUNER P.C.B.	1	(RTL)ECS,ECK
29	VEP07A91A	TUNER P.C.B.	1	(RTL)EGS,EGK
30	XSN3+4FJ	SCREW	1	
31	RMQ1551	GASKET A	1	
32	VMX1336	MINI CARD SPACER	1	
33	RQLS0375	CAUTION LABEL	1	⚠
34	VEP73136A	SD CARD P.C.B.	1	(RTL)
34-1	RMR1766-K	SD CARD HOLDER ASS'Y	1	
34-2	XTN2+8GFJ	SCREW	2	
35	RMQ1514	HEAT TRANSFER SHEET D	1	
36	VEK0K01	FFC(20P)	1	
37	N5EZZ0000003	HDD CONNECTOR	1	
38	VEK0K15	FFC(40P)	1	
39	RMX0358	SLEEVE	4	
40	RMX0359	HDD CUSHION SPACER	4	
41	RMV0312	SHEET COVER	1	
42	RMX0362	GEL SPACER	4	
43	XYN3+J8FJ	SCREW	3	
A1	EUR7659YC0	REMOTE CONTROL ASS'Y	1	EPS,EPK
A1	EUR7659Y60	REMOTE CONTROL ASS'Y	1	ECS,ECK,EGS,EGK
A1-1	UR76EC5903	BATTERY COVER	1	
A2	RJA0043-1C	AC CORD	1	⚠
A3	K2KA6BA00003	AV CORD	1	
A4	K1TWACC00001	RF COAXIAL CABLE	2	
A6	RPQD0007	PAD	1	EGS,EGK
A7	RPQD0003	PAD (C)	1	
A8	RPQFD0001	ACCESSORY BOX	1	
A9	RPFD0005	POLYETHYLENE BAG(F.B)	1	ECS,ECK,EGS,EGK
A10	RQT8359-R	OPERATING INSTRUCTIONS	1	(IA)EPS,EPK ⚠
A10	RQT8415-L	OPERATING INSTRUCTIONS	1	(IB)ECS,ECK,EGS,EGK ⚠
A10	RQT8416-D	OPERATING INSTRUCTIONS	1	(IC)ECS,ECK,EGS,EGK ⚠

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A10	RQT8417-V	OPERATING INSTRUCTIONS	1	(ID)ECS,ECK ⚠
A10	RQT8418-2H	OPERATING INSTRUCTIONS	1	(IE)ECS,ECK ⚠
A10	RQT8419-E	OPERATING INSTRUCTIONS	1	(IF)ECS,ECK ⚠
A10	RQT8420-M	OPERATING INSTRUCTIONS	1	(IG)ECS,ECK ⚠
A10	RQT8421-J	OPERATING INSTRUCTIONS	1	(IH)ECS,ECK ⚠
A11	RQCC2704	DVD MEDIA SHEET	1	
PC1	RPG7863	PACKING CASE	1	EPS
PC1	RPG8017	PACKING CASE	1	EPK
PC1	RPG7862	PACKING CASE	1	EGS
PC1	RPG7983	PACKING CASE	1	EGK
PC1	RPG7910	PACKING CASE	1	ECS
PC1	RPG7984	PACKING CASE	1	ECK
PC2	RPN1859-1	CUSHION	1	
PC3	RPFD0004	MIRAMAT BAG	1	
PC4	RPN1903	FANBAG CUSHION	1	ECS,ECK

17. Schematic Diagram for printing with A4

LOCATION MAP

1/4	2/4
3/4	4/4

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

T X_SW_3R3V
T RESET_5R2V
T FANOUT
T FANLOCK
T P_SAVE_L

TO P1102
POWER P.C.B.
P1501
K1KA19A00007

X_SW15R5V	1
X_SW5R8VT	2
X_SW5R8V	3
X_SW5R8V	4
X_SW5R8V	5
X_SW5R8V	6
GND	7
GND	8
GND	9
GND	10
GND	11
X_SW12V	12
X_SW12V	13
X_SW12V	14
X_SW12V	15
X_SW3R8V	16
X_SW3R8V	17
P_ON_H	18
X_SW3R8V	19
P_SAVE_L	20
FANLOCK	21
FAN_GND	22
FANOUT	23

G1501S

P
⚠ IP1501 K5H302100004
LB1503 J0JKB0000003
LB1502 J0JKB0000003
LB1504 J0JKB0000003
LB1506 J0JKB0000003
C1503 F2A1A6810022
C1504 F2A1E0100067
C1515 F2A1E4700948
C1518 10V100

TUREG5V
IC1510
C0CBCDG00006
(PG050DNA1ZPH)
V IN ON|H| V OUT NC GND
1 2 3 4 5

X_SW5R2V
IC1507
C0CBCDD00027
(MM1685C)
V IN NC NC ON|H|
V OUT NC CN GND
8 7 6 5
1 2 3 4

X_SW3R3
IC1505
C0CBCD00174
(S-8515A33AMC-I2STFG)
VO NC
VIN GND CNT
5 4
1 2 3

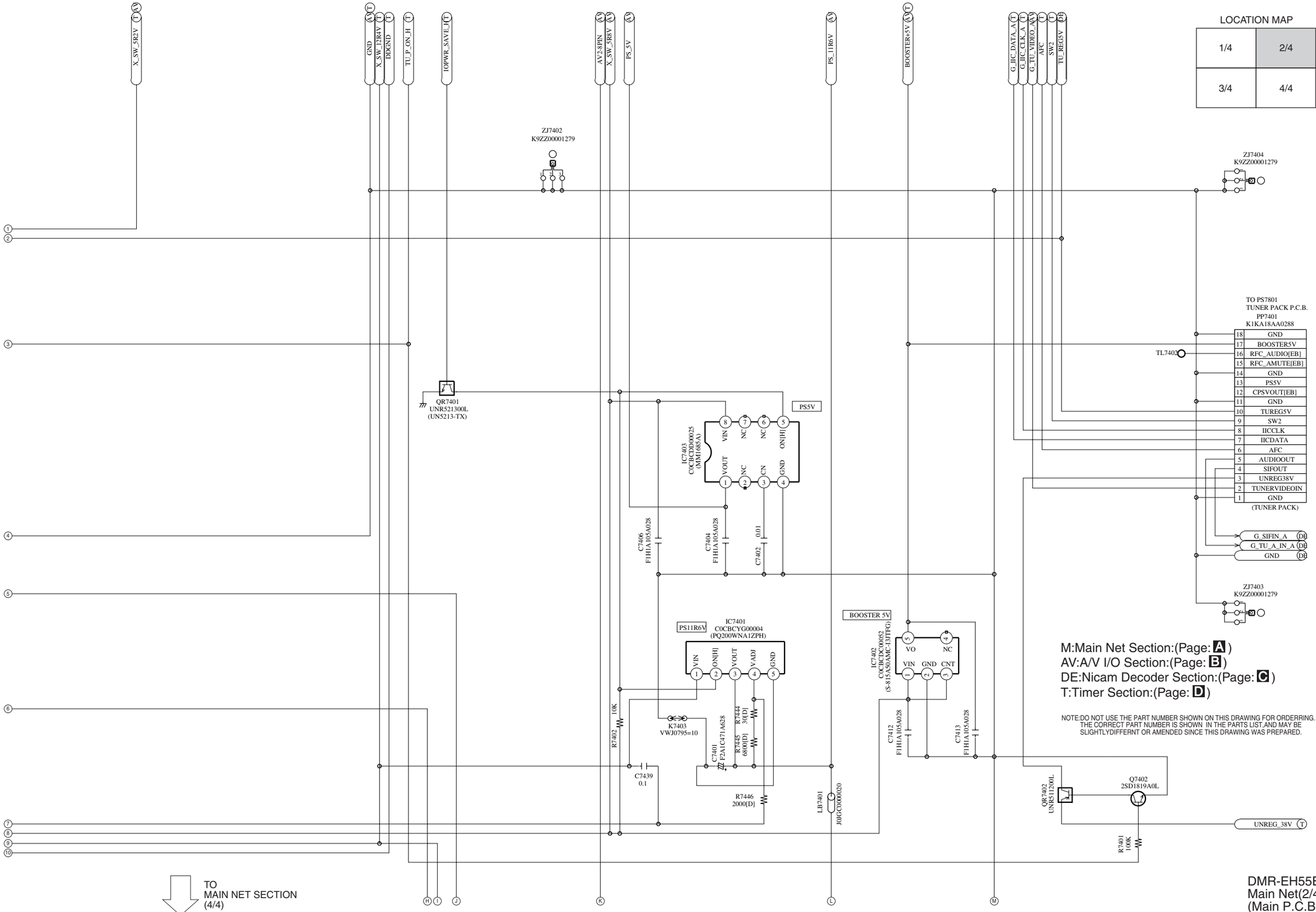
ANA5V
IC1520
C0CBCD00052
(S-8515A50AMC-I3TFG)
CNT GND VIN
NC VO
5 2 1
4 3

ANA3R3V
IC1521
C0CBCBD00048
(MM1683O)
V IN NC NC ON|H|
V OUT NC CN GND
8 7 6 5
1 2 3 4

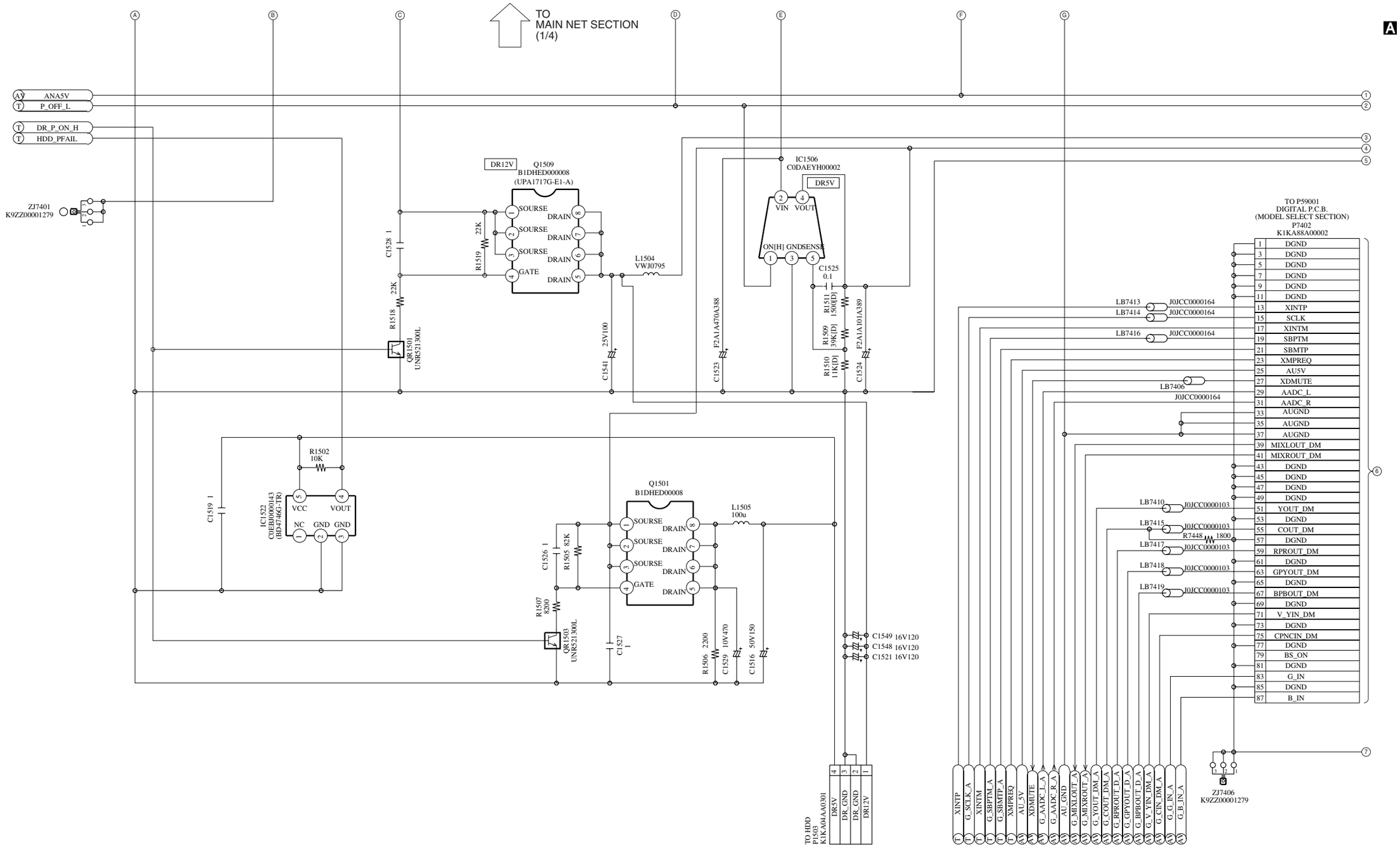
C1535 F1H1A105A028
C1536 F1J0J106A014
C1537 SI[F2A1A470A388]
C1538 F1H1A105A028
C1539 F1H1A105A028
C1540 0.01
C1520 F1H1A105A028
C1522 F1H1A105A028
C1510 F1H1A105A028
C1508 F1H1A105A028
C1511 F1H1A105A028
C1512 F1H1A105A028
C1509 1

TO
MAIN NET SECTION
(3/4)

DMR-EH55EC/EP,EH56EG
Main Net(1/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)



DMR-EH55EC/EP,EH56EG
Main Net(2/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)



LOCATION MAP

1/4	2/4
3/4	4/4

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

DMR-EH55EC/EP,EH56EG
Main Net(3/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)

TO
MAIN NET SECTION
(2/4)

TO P59001
DIGITAL P.C.B.
(MODEL SELECT SECTION)

K1KA88A00002

DGND	2
DGND	4
DGND	6
DGND	8
DGND	10
DGND	12
DR12V	14
DR12V	16
DRGND	18
DRGND	20
DR5V	22
DR5V	24
ITM2A	26
ITA2M	28
P_OFF_L	30
XFWE	32
D3R3V	34
I2C5DT	36
I2C5CK	38
IT_CK	40
X_SW3R2V/D3R3V	42
IECOUT	44
DGND	46
UARTP2M	48
UARTM2P	50
P_OFF_L3	52
CSYNC_IN	54
ANA3R3V	56
EPG_ON_H/BUSY	58
X_SW3R8V	60
X_SW3R8V	62
X_SW_12V	64
X_SW_12V	66
X_SW_12V	68
X_SW_12V	70
X_SW_12V	72
X_SW_12V	74
ANA5V	76
DGND	78
EPG_VIDEO	80
DGND	82
RGB_CPSVIN	84
DGND	86
R_IN	88

L7402 G0A220GA0026
LB7407 J0JKB0000012
C7414 F1H1A105A028
C7415 F1K1C105A026
LB7408 J0JCC0000164
C7418 F2A0J221A458
C7419 1u
LB7404 J0JKB0000012
L7401 G0A220GA0026
R7410 820
LB7411 J0JCC0000164
LB7412 J0JCC0000164
R7409 100
LB7409 J0JKB0000012
LB7420 J0JCC0000164
LB7405 J0JKB0000012
LB7402 J0JKB0000012
LB7403 J0JKB0000012

ZJ7405
K9ZZ00001279

R7404 22K
R7405 ERDS2TJ471T
D7403 MA2C165001VT (MA165TA5VT)
Q7401 2SD1819AWL
R7407 10K
C7407 0.1
R7406 470K
R7408 15K
QR7403 UNR521500L
QR7404 UNR521500L
R7403 15K

R7412 4700
R7411 4700

TL7401
IC7404 C3EBFC000053
VCC /VEE SCL SDA
NC NC NC VSS
C7417 0.1
R7414 4700

G_R_C_IN_A
G_AV2_VIN_A
EPG_ON_H
G_CSYNC_IN_A
G_UARTM2P_A
G_UARTP2M_A
G_JEC_OUT_A
AV2_8
AV2_PB_L
WIDE_H

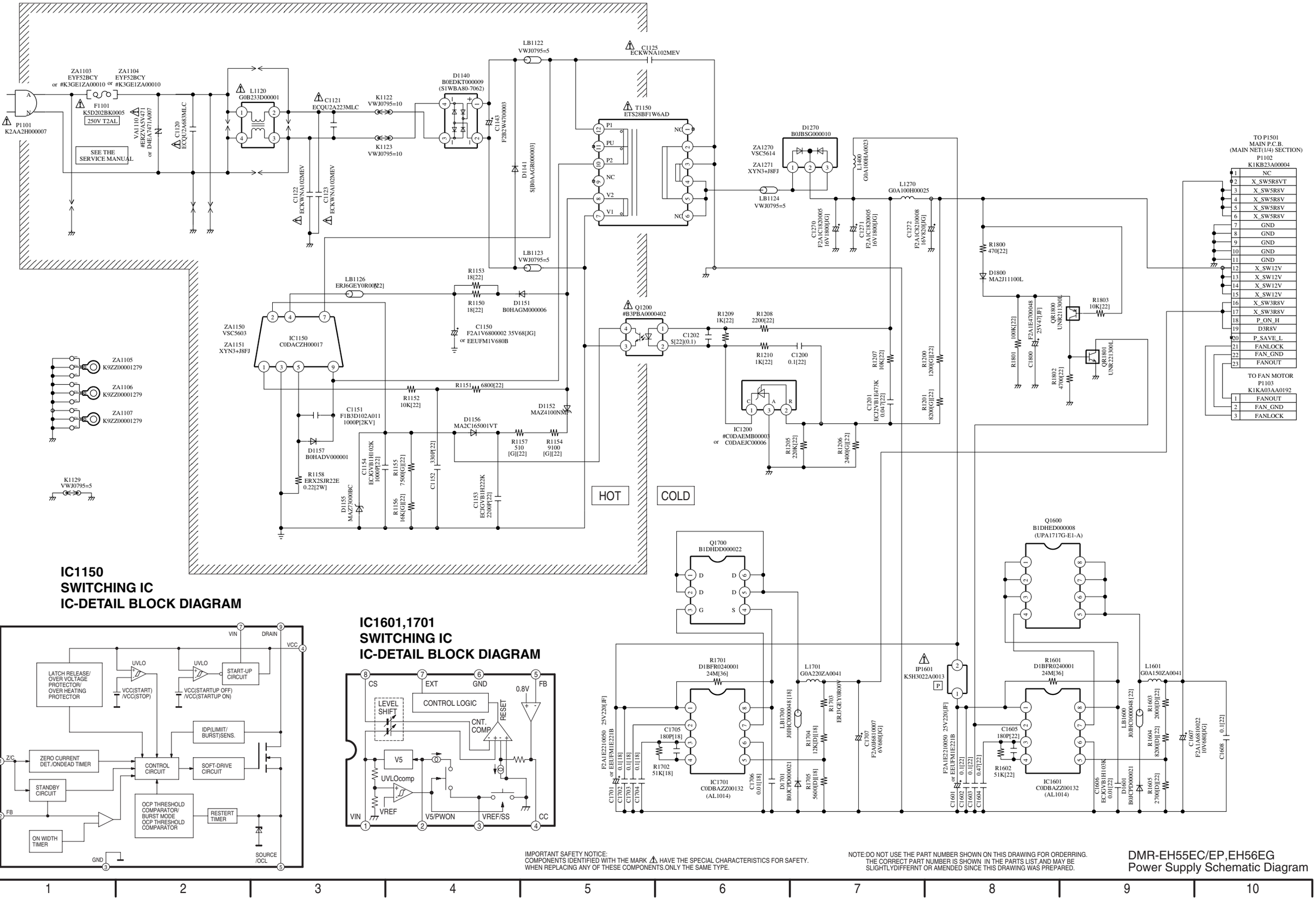
M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

LOCATION MAP

1/4	2/4
3/4	4/4

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
Main Net(4/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)



IC1150
SWITCHING IC
IC-DETAIL BLOCK DIAGRAM

IC1601,1701
SWITCHING IC
IC-DETAIL BLOCK DIAGRAM

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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DMR-EH55EC/EP,EH56EG
Power Supply Schematic Diagram

TO P53501
DIGITAL P.C.B.
(BE(1/4) SECTION)
P6802
K1MY20AA0021

CD	20
DAT1	19
DAT0	18
GND	17
CLK	16
WP	15
CMD	14
DAT3	13
DAT2	12
D3R3V	11
D3R3V	10
TPA+	9
TPA-	8
GND	7
TPB+	6
TPB-	5
GND	4
XDIAG	3
XSORX	2
XSOTX	1

SDAT1
SDAT0
R6802 22
G_SCLK_B
SWP
SCMD
SDAT3
SDAT2
LB6801
J0JHC0000032
C6801
0.01
RX6801
EXB38V220JV
SDAT2
SDAT3
SCMD
SDAT0
G_SCLK_B
SDAT1
R6803 22
R6804 22K
R6807 22K
R6801
100
SWP
LB6802
J0JHC0000045
RX6802
EXB38V123JV
SDAT2
SDAT3
SCMD
SDAT0
SDAT1
R6805 12K

SD CARD
P6801
K1NA09E00075
SCDA4A0200

14	
9	DAT2 FG
1	DAT3
2	CMD
3	GND
4	3R3V
5	CLK
6	GND
7	DAT0
8	DAT1
12	WP
11	COM
10	CD FG
13	

CKE9
CKE1
CKE2
CKE3
C6803 $[F1J0J106A014]
C6802 F1H1A225A051
CKE4
CKE5
CKE7
CKE8
CKE12
CKE10

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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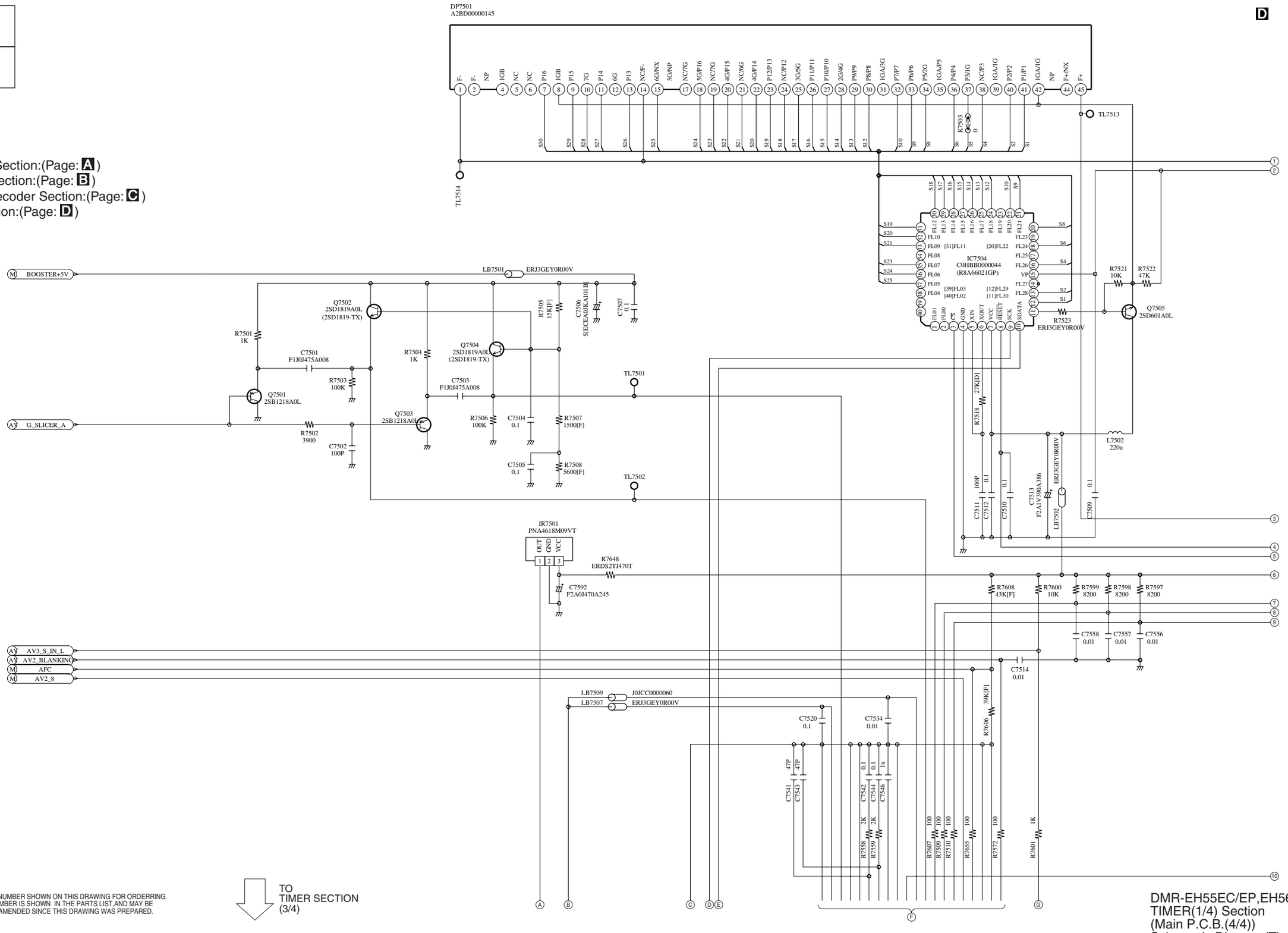
SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
SD Card Schematic Diagram

LOCATION MAP

1/4	2/4
3/4	4/4

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

TO TIMER SECTION (3/4)

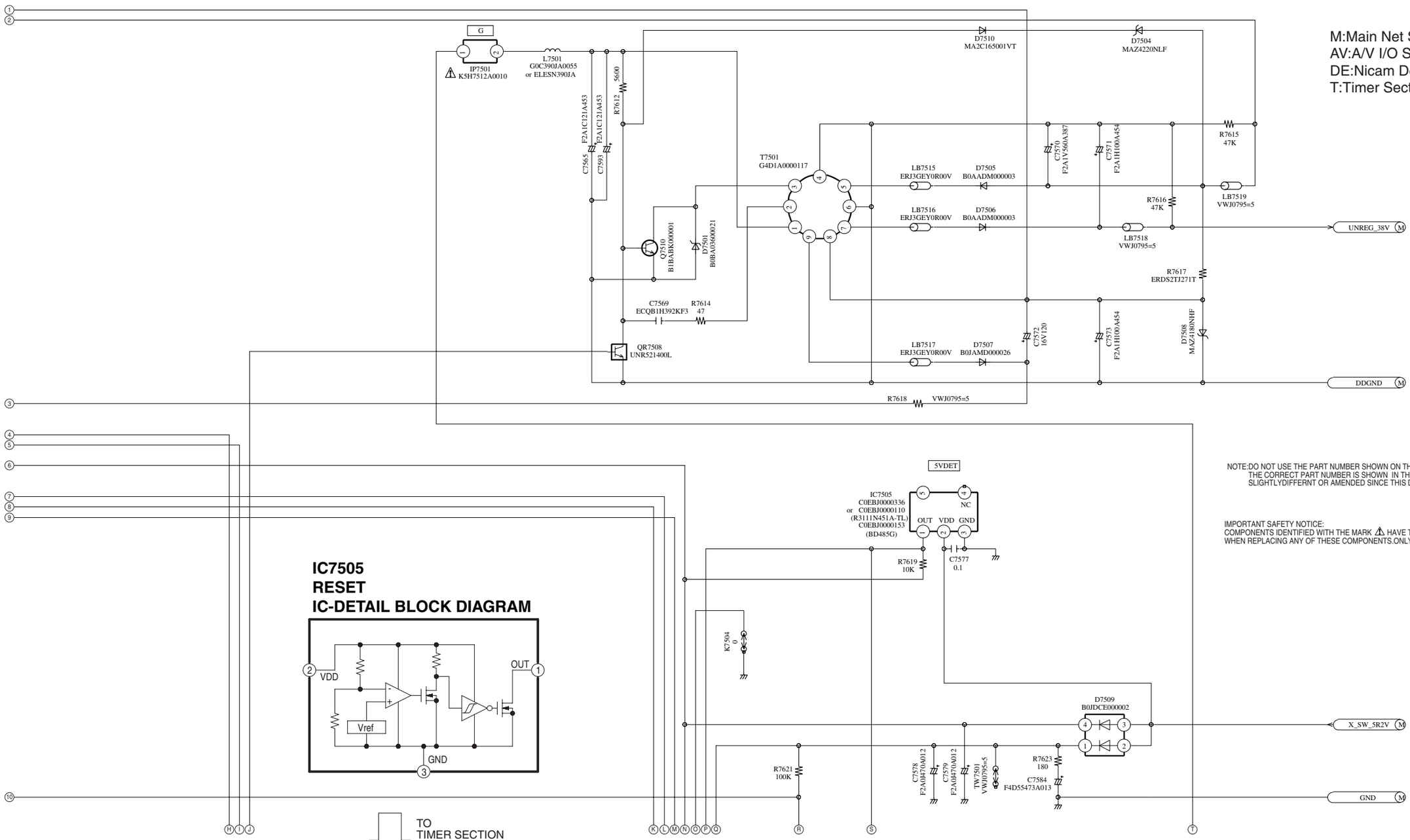
DMR-EH55EC/EP,EH56EG
TIMER(1/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

LOCATION MAP

1/4	2/4
3/4	4/4

D

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



IC7505
RESET
IC-DETAIL BLOCK DIAGRAM

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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DMR-EH55EC/EP,EH56EG
TIMER(2/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

TO
TIMER SECTION
(1/4)

G_CSYNC_A
G_CSYNC_IN_A
R7516 22(EC)
TL7515
R7527 100
R7528 100
R7529 100
C7522 100P
CL7501
R7651 4700
C7516 18P
X7501
H0D100500018
or H0D100500019
C7517 18P
C7518 22P
C7519 18P
X7502
H0A327200108
R7531 100K
R7532 3300
R7533 0
C7523 0.01
C7524 0.1
IC7502
C0EBE0000504
R7534 10K
R7535 100
R7536 100
C7528 0.1
R7537 100
LB7508
ERJ3GEY0R00V
R7543 100
R7544 100
TL7505
CL7503
C7532 10P
C7531 10P
R7549 4700
R7548 4700
XMPREQ
XINTM
XINTP
G_IIC_CLK_A
G_IIC_DATA_A

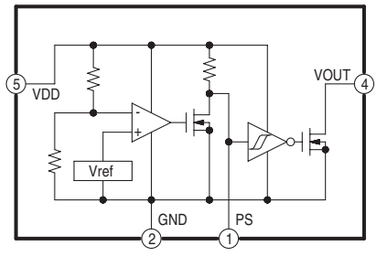
IC7501
C2CBJG000713

[1]NC(OPEN)
[2]NC(OPEN)
[3]REMOCON
[80]NC(OPEN)
[79]IO_P_SAVE[H]
[78]CEC_OUT
[77]NC(OPEN)
[76]P50_CEC
[54]HDMI_5VREG
[53]NC(GND)
[52]NC(OPEN)
[51]FL_RESET
[31]ONBOARD/EPG_TXD
[32]ONBOARD/EPG_RXD
[33]NC(GND)

TL7509
P50_INT
SYS_P_FAIL[H]
PFAIL[L]
SD_SEL_LED
DVD_SEL_LED
HDD_SEL_LED
SD_LED
(STANDBY_LED)
NC(OPEN)
(EEPROM_W_C)
XTMUTE[L]
VSS(GND)
FILAMENT_ON[L]
VCC2(5V)
P_SAVE[H]
AV3_SIN[L]
RFC_A_MUTE
FL_100MM_H
SYS2
TEST2[H]
HDMI_HOTPLUG
CL7505
CL7506
CL7507
CL7508
CL7504
R7582 100K
TL7503
TL7512
R7530 22K
R7653 100
C7551 0.1
R7520 10K
TL7510
R7577 10K
R7561 100
R7562 100
R7517 4700
R7564 100
R7565 100
R7566 100
R7567 100
R7568 100
R7570 3900
R7571 100
C7547 1
R7576 1K

G_SBPTM_A
G_SBMTP_A
G_SCLK_A
EPG_ON_H
HDD_PFAIL
P_SAVE_L
DR_P_ON_H
TU_P_ON_H
P_OFF_L
SYNC_DET
AV4_S_IN_L
AV2_PB_L
WIDE_H

IC7502
X RESET
IC-DETAIL BLOCK DIAGRAM



LOCATION MAP

1/4	2/4
3/4	4/4

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AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

DMR-EH55EC/EP,EH56EG
TIMER(3/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

TO
TIMER SECTION
(2/4)

QR7507
UNR521000L

RESET_5R2V (M)

IOPWR_SAVE_H (M)

C7554 0.01
C7555 0.01

R7583 4700
R7584 47K
R7586 27K
D7502 B0ACCK000005 (1SS355)
220P
100K
Q7506 2SD0601A0L (2SD601A-TX)
R7585 2R2M
R7587 220K
C7553
R7590
Q7507 2SD0601A0L (2SD601A-TX)
Q7508 2SD1819A0L (2SD1819-TX)
C7552 220P
R7588 100K
R7589 220

TO JW7001
FRONT(L) P.C.B.
JW7501
VWJ02F0060VV

1	KEY3_POWER
2	GND

LB7510
ERJ3GEY0R00V

K7501 0

R7575 100
R7574 22K

FANLOCK (M)

X_SW_12R4V (M)

C7588 0.01

IC7507 C0ABBA000073

8 V+	7 B OUT	6 B-IN	5 B+IN
1 A OUT	2 A-IN	3 A+IN	4 GND

Q7511 B1ABMD000004

R7626 820
C7590 0.1
R7627 30K
R7624 10K
C7587 1
R7625 10K

FANOUT (M)

X_SW_3R3V (M)

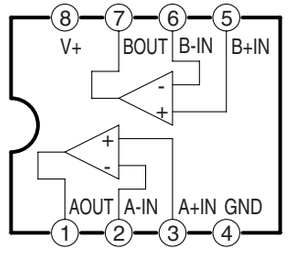
G_UARTP2M_A (M)
G_UARTM2P_A (M)
SW2 (M)
XTMUTE (AV)

P50 (AV)

EXT_LINK S7501 EVQ11A04M
CH_DOWN S7502 EVQ11A04M
CH_UP S7503 EVQ11A04M
OPEN/CLOSE S7504 EVQ11A04M
SELECT S7505 EVQ11A04M
STOP S7506 EVQ11A04M
PLAY S7507 EVQ11A04M
REC S7508 EVQ11A04M

R7641 2700
R7640 2700
R7639 2700
R7643 16K
R7644 5600
R7642 5600

IC7507
MOTOR DRIVE
IC-DETAIL BLOCK DIAGRAM



M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

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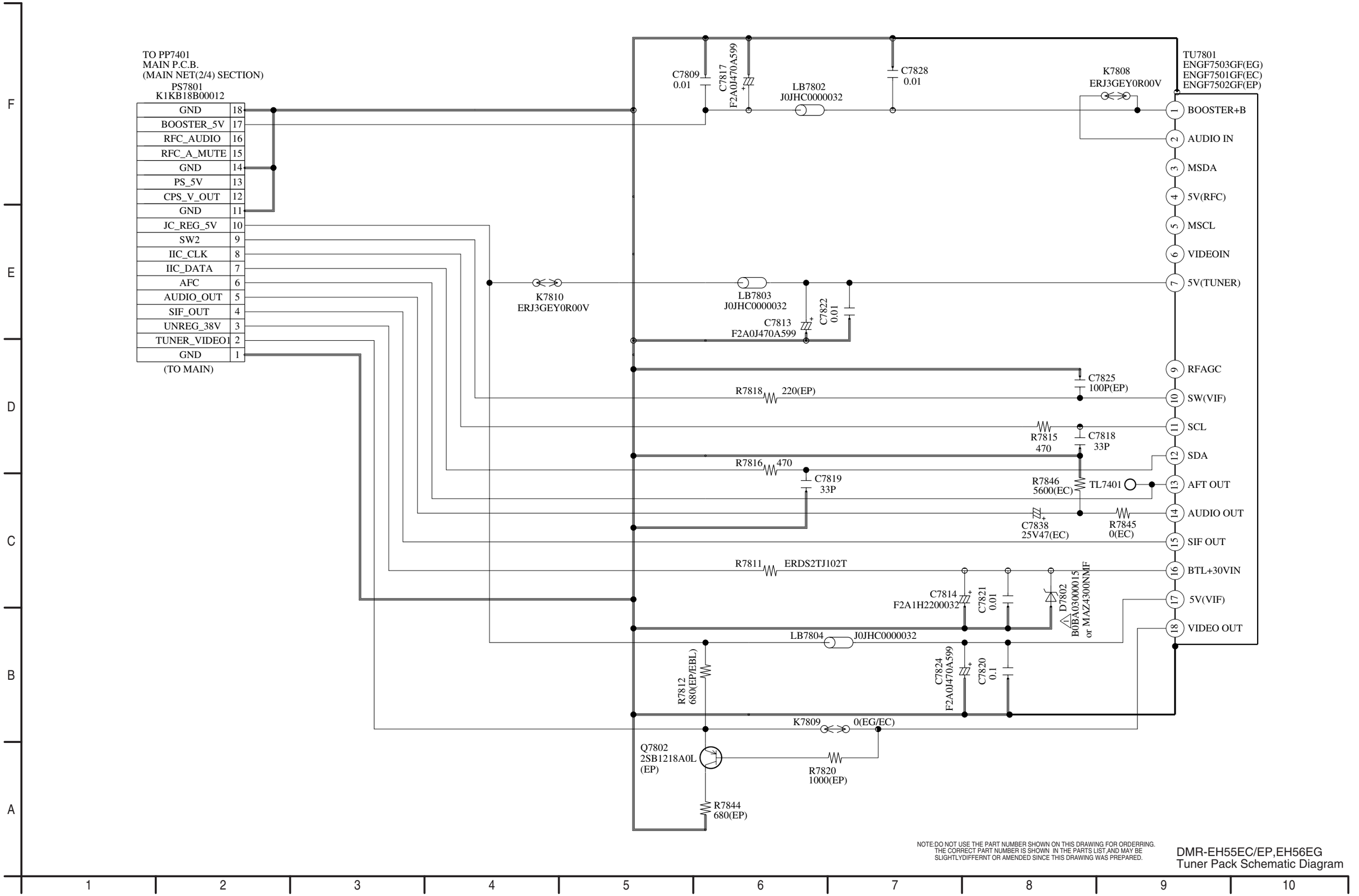
LOCATION MAP

1/4	2/4
3/4	4/4

DMR-EH55EC/EP,EH56EG
TIMER(4/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)



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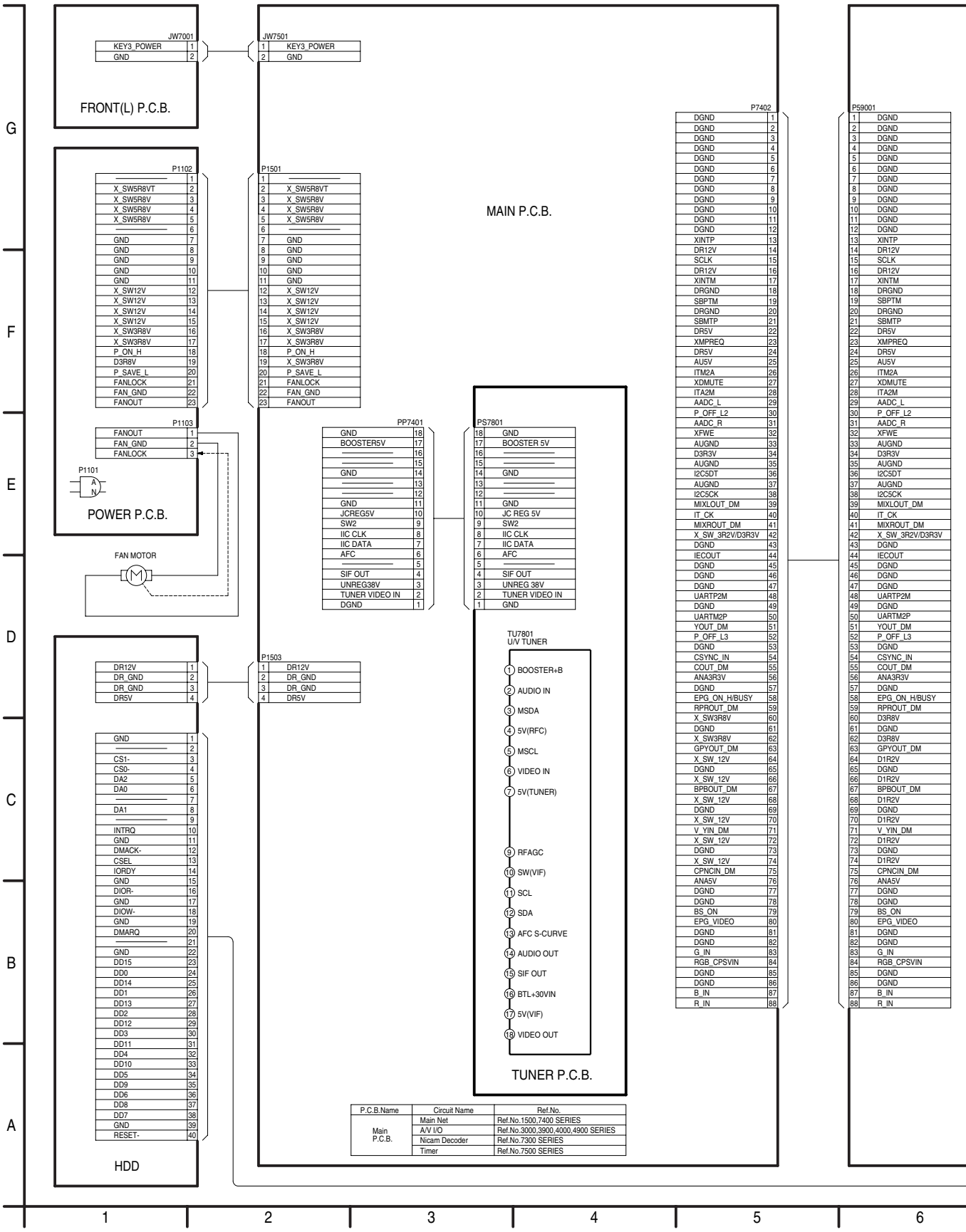
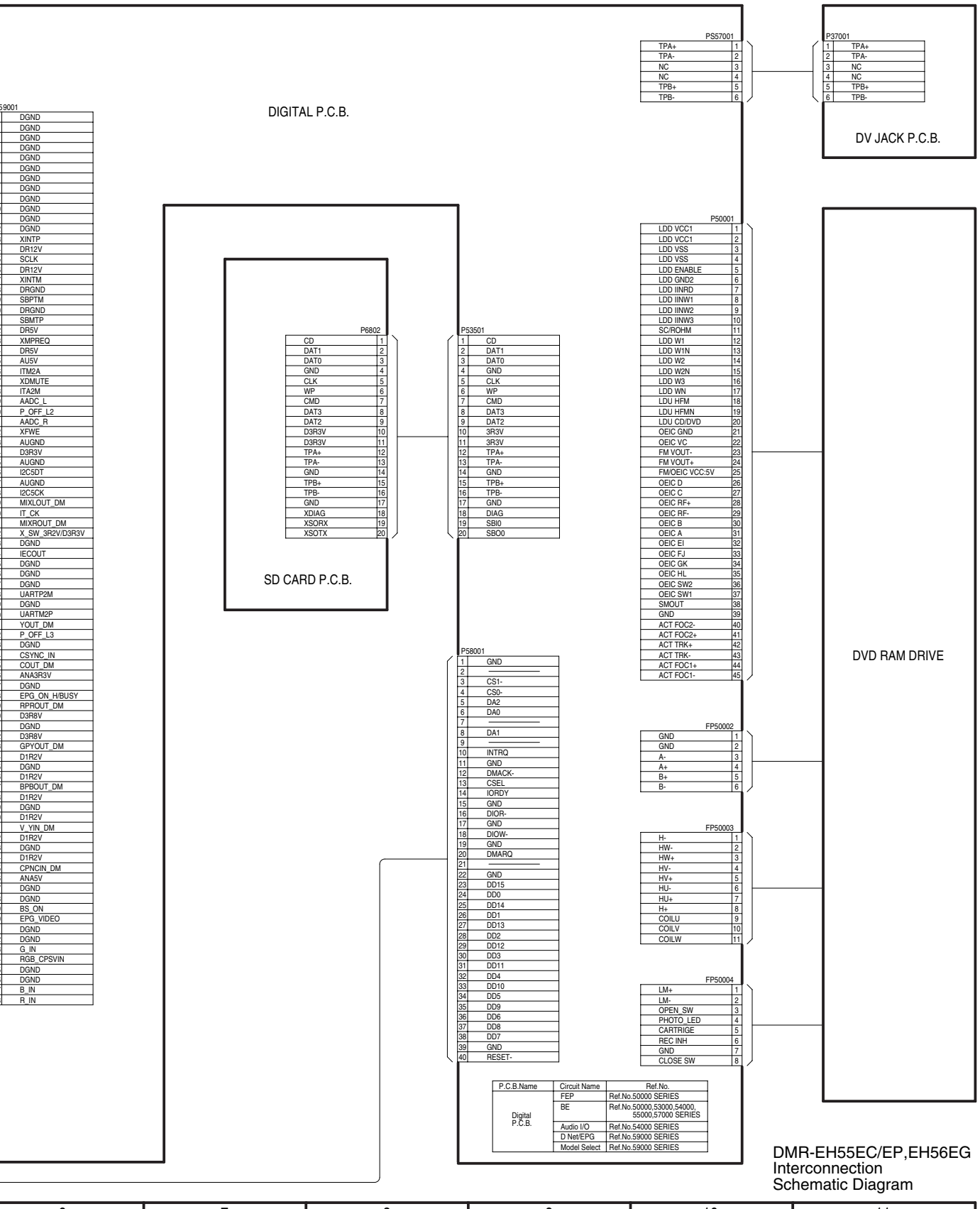
DMR-EH55EC/EP,EH56EG
Tuner Pack Schematic Diagram

13 Schematic Diagram

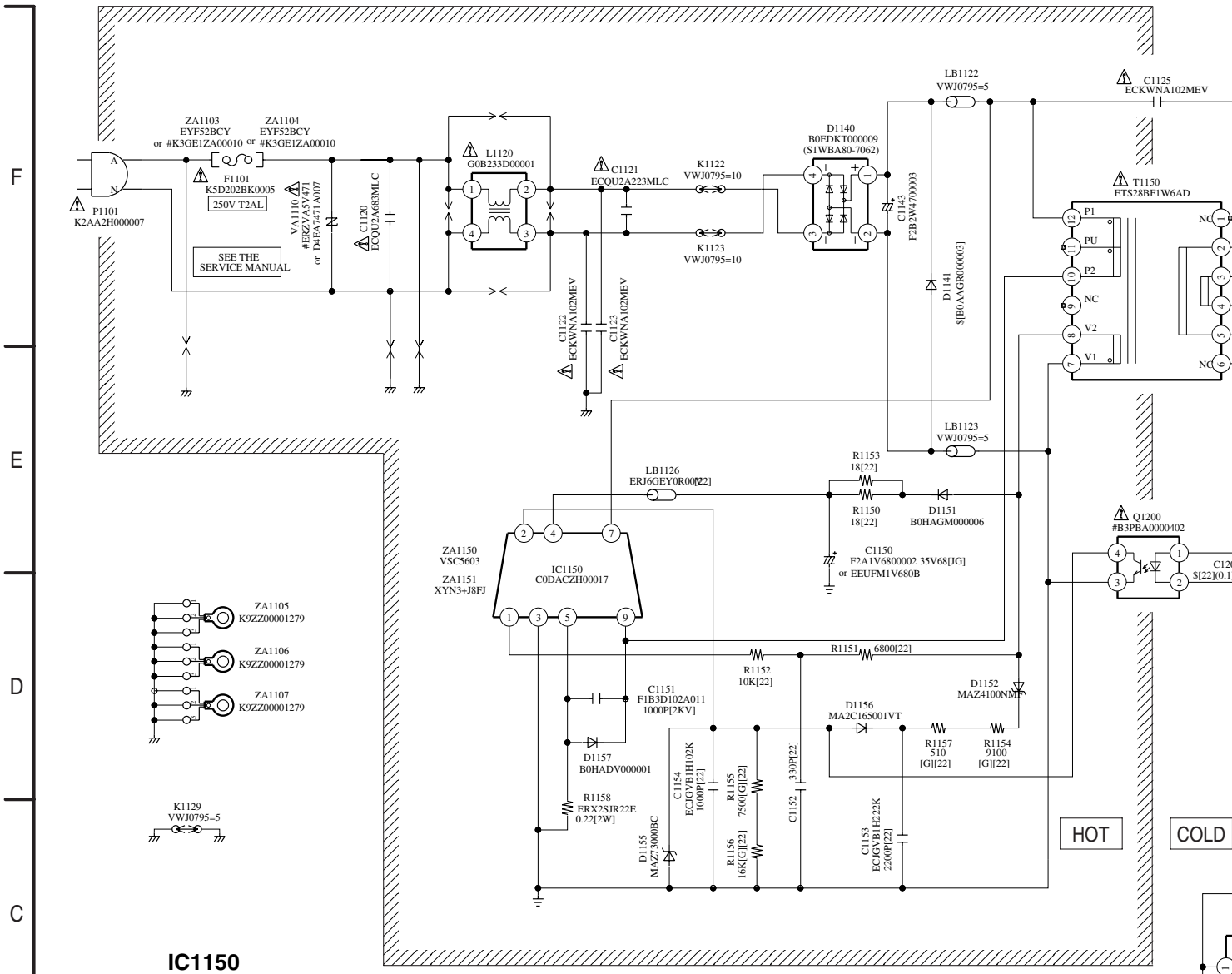
13.1. Interconnection Schematic Diagram



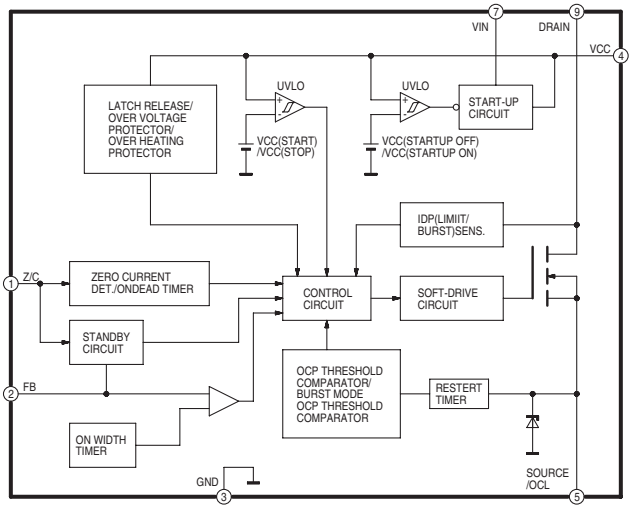


DMR-EH55EC/EP,EH56EG
Interconnection
Schematic Diagram

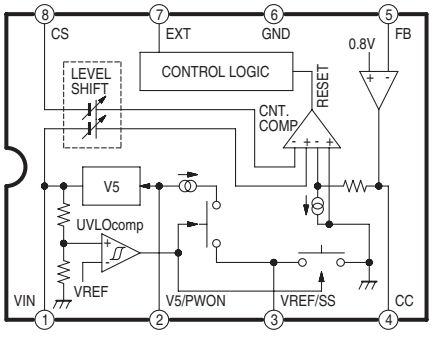
13.2. Power Supply Schematic Diagram

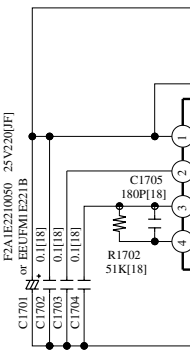


IC1150
SWITCHING IC
IC-DETAIL BLOCK DIAGRAM

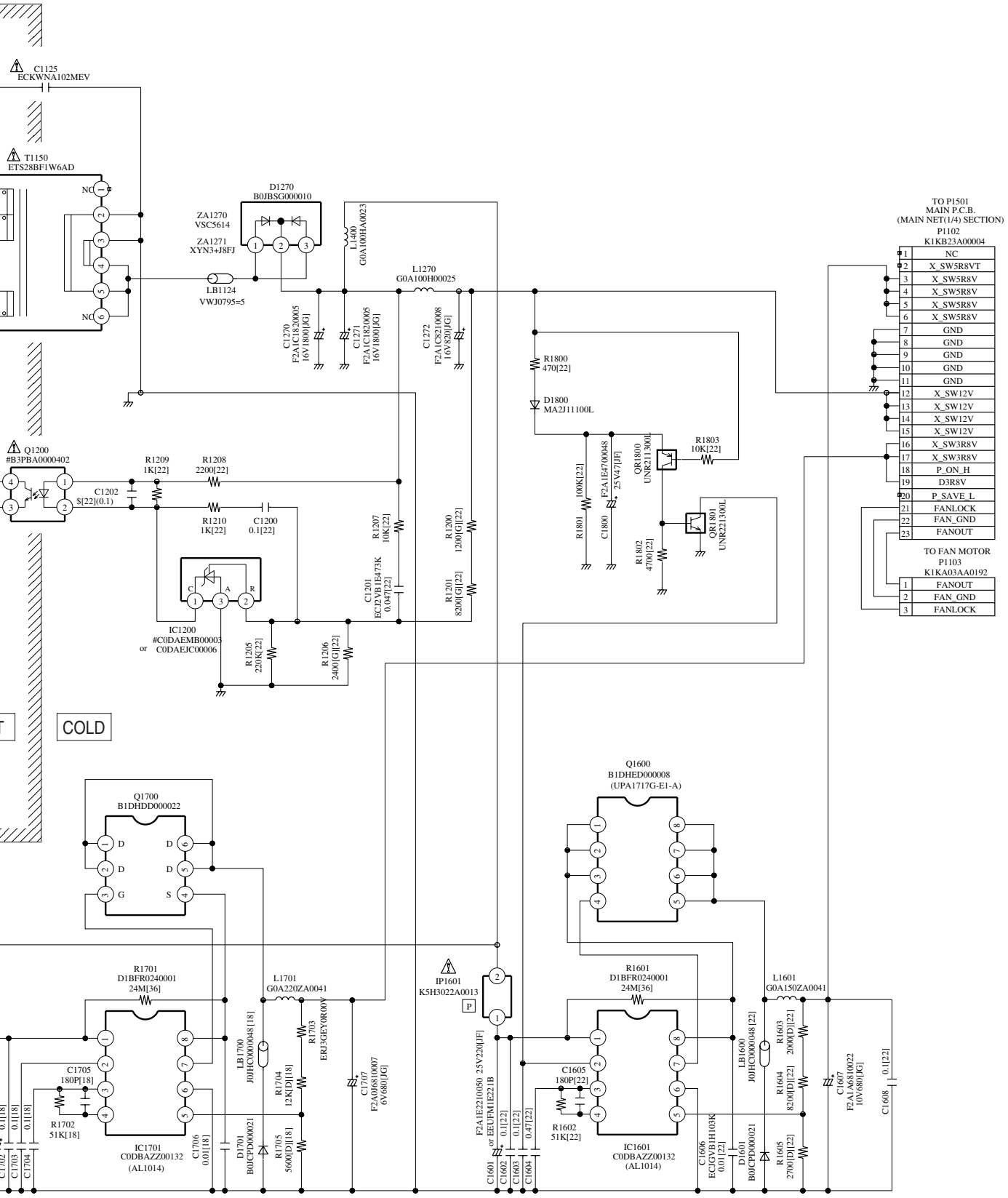


IC1601,1701
SWITCHING IC
IC-DETAIL BLOCK DIAGRAM





IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE S
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE



THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
E COMPONENTS.ONLY THE SAME TYPE.

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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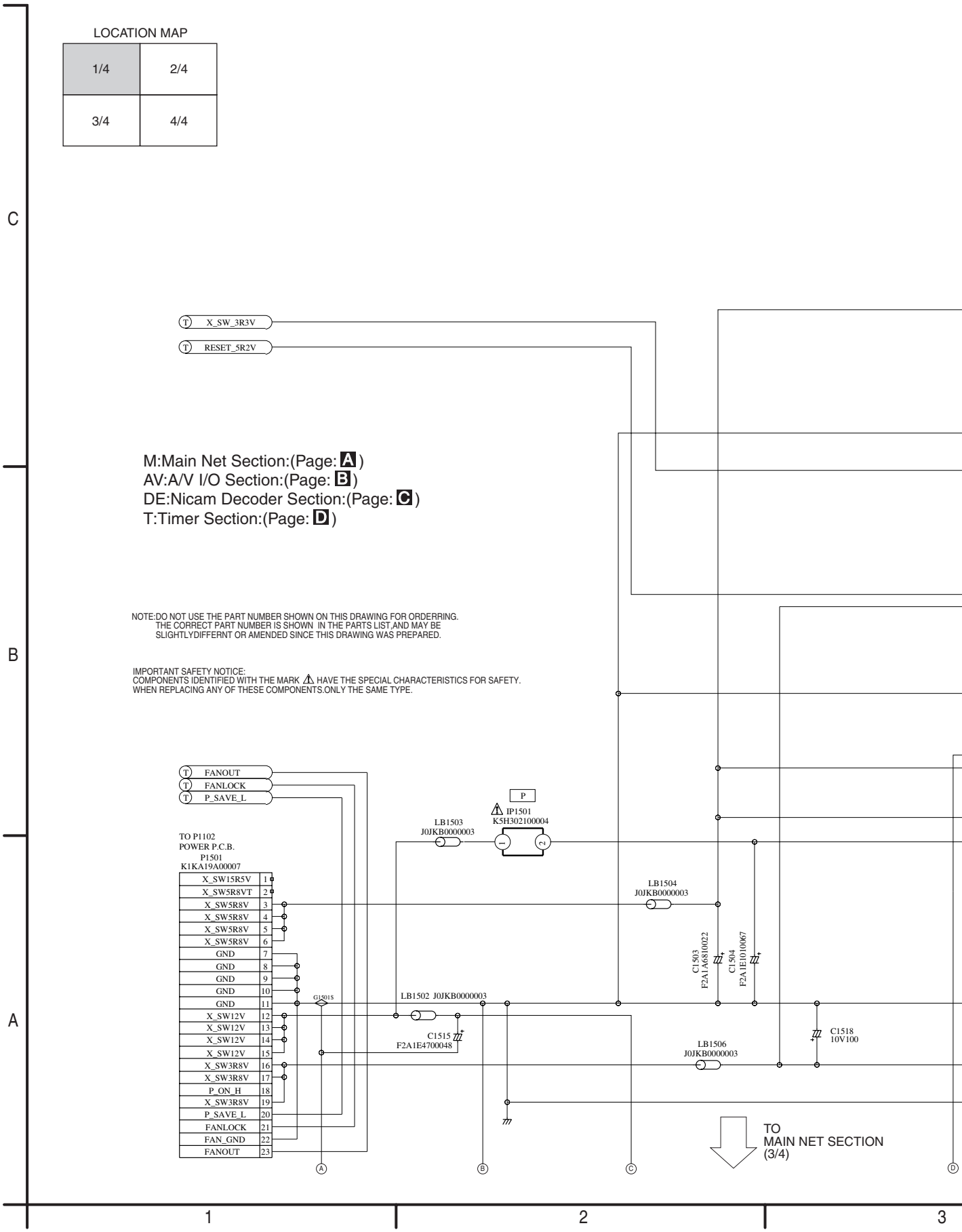
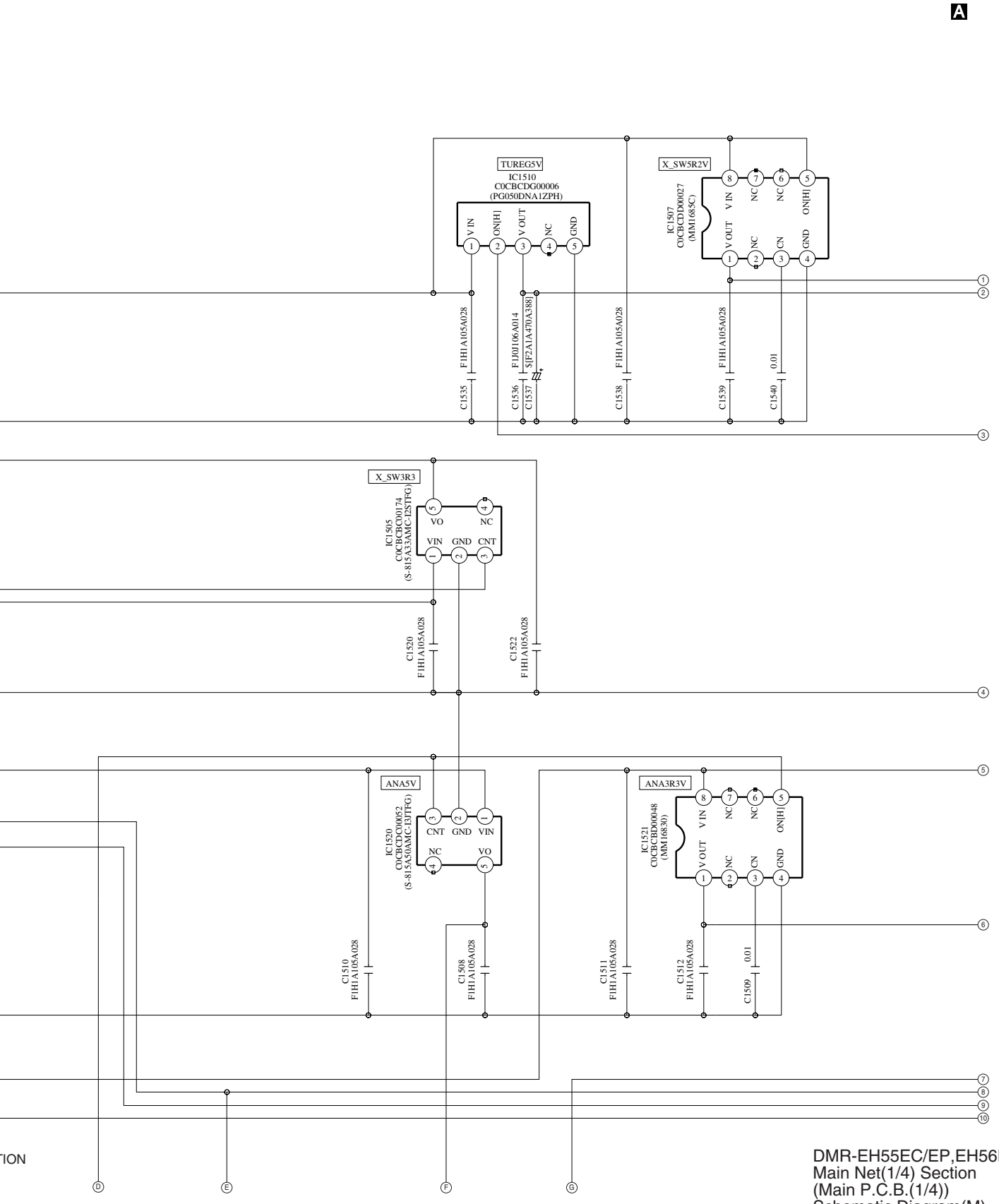
DMR-EH55EC/EP,EH56EG
Power Supply Schematic Diagram

6 | 7 | 8 | 9 | 10

13.3. Main Net (1/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)



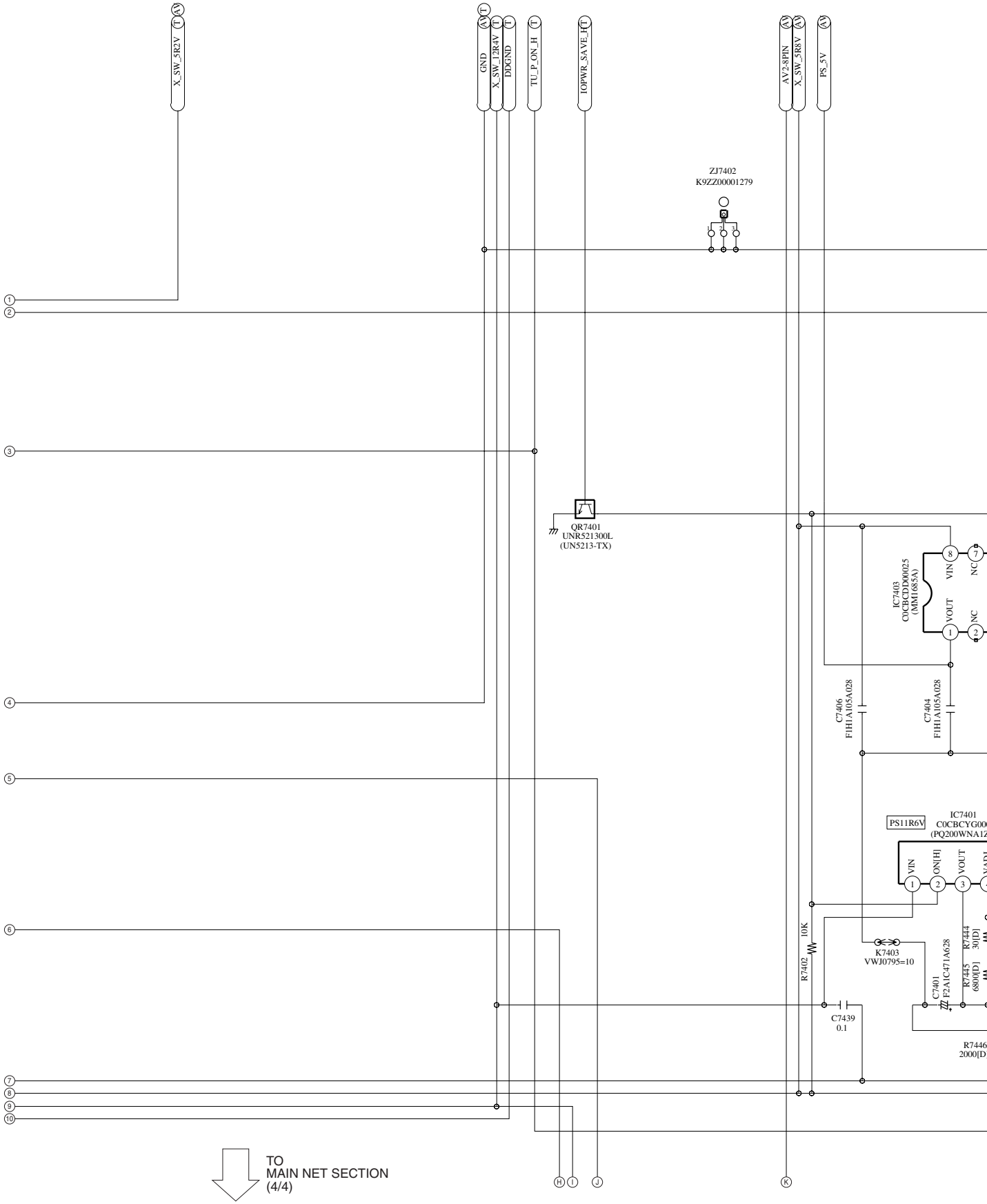


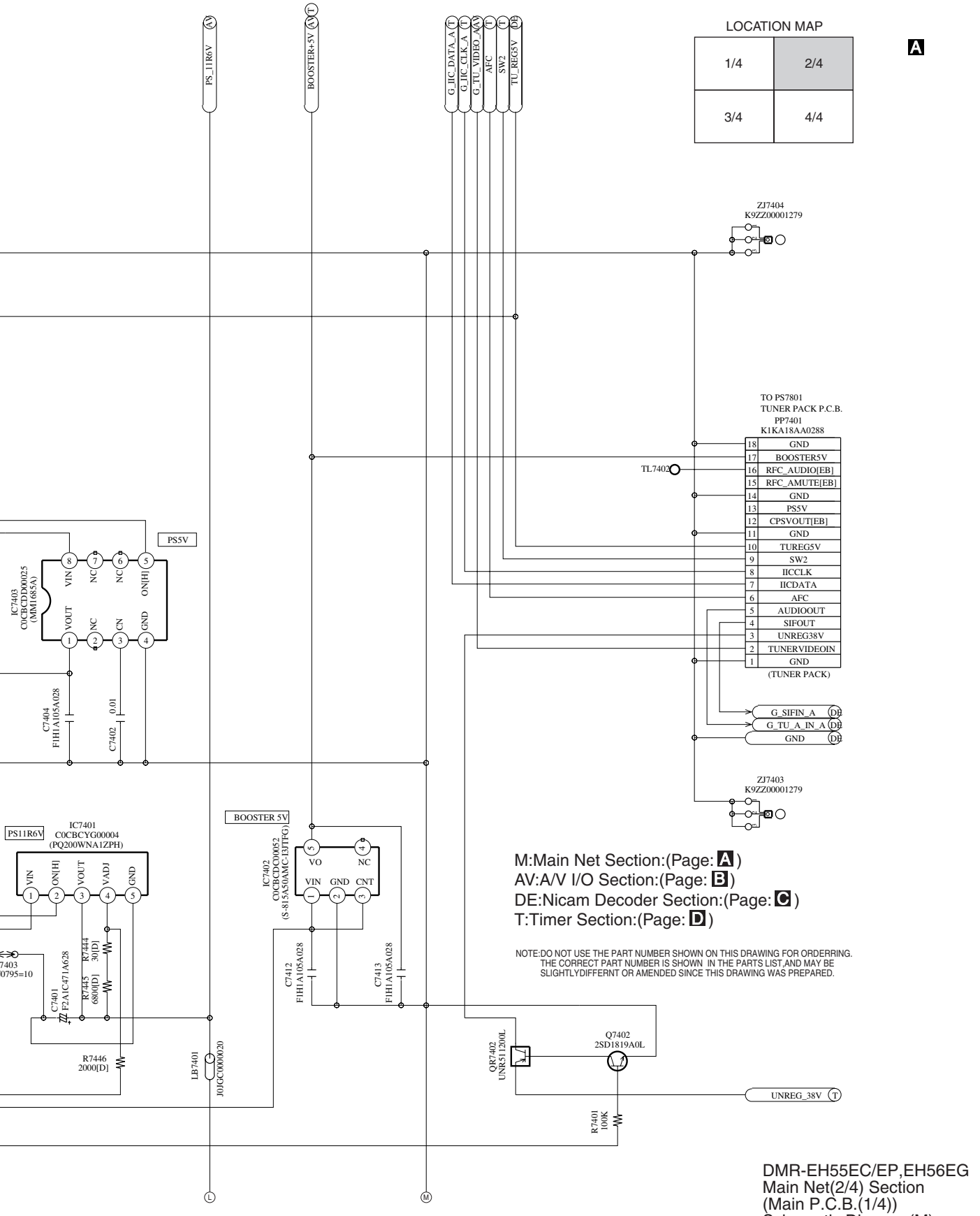
TION

DMR-EH55EC/EP,EH56EG
Main Net(1/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)

3 4 5

13.4. Main Net (2/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)

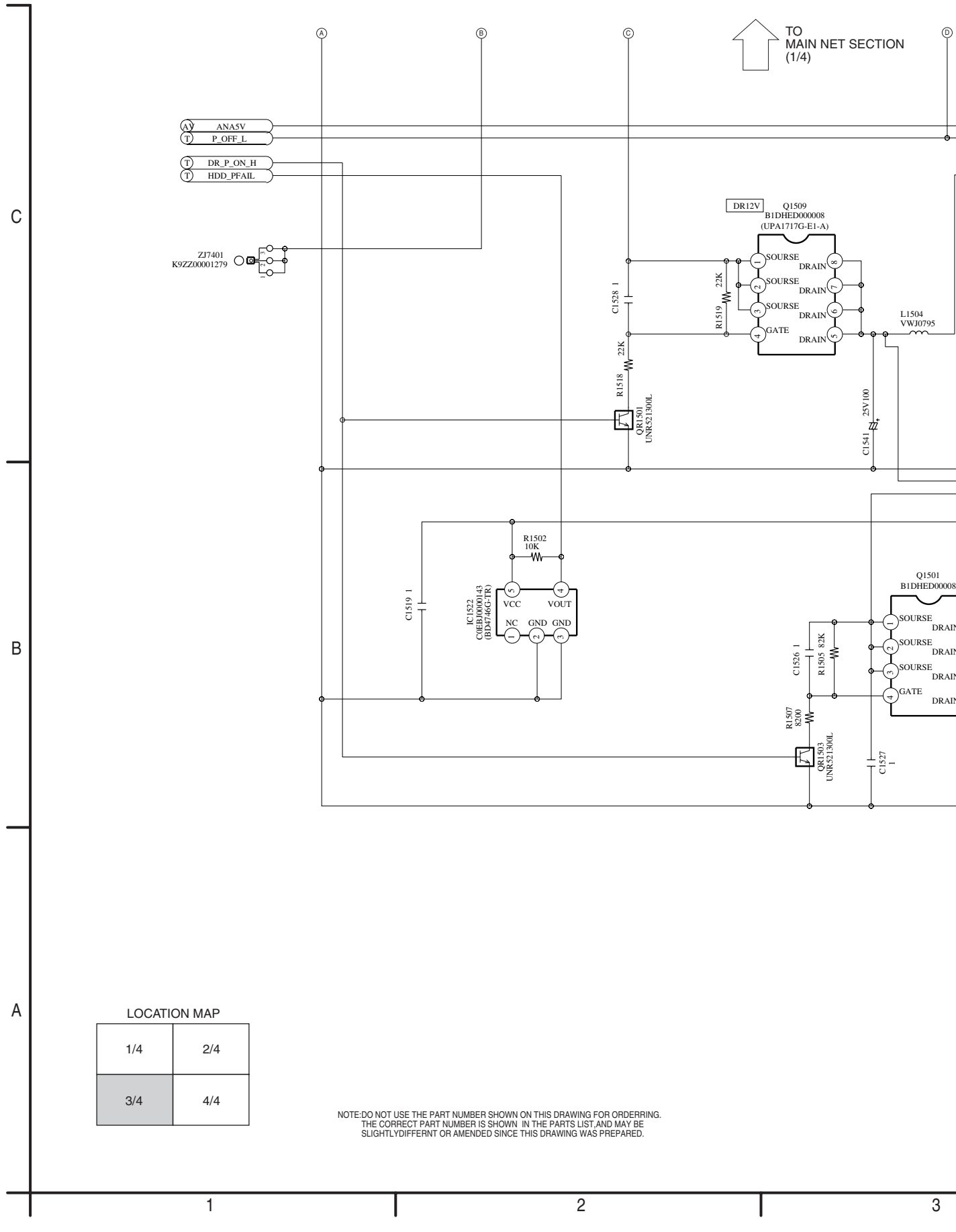




DMR-EH55EC/EP,EH56EG
Main Net(2/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)

8 | 9 | 10

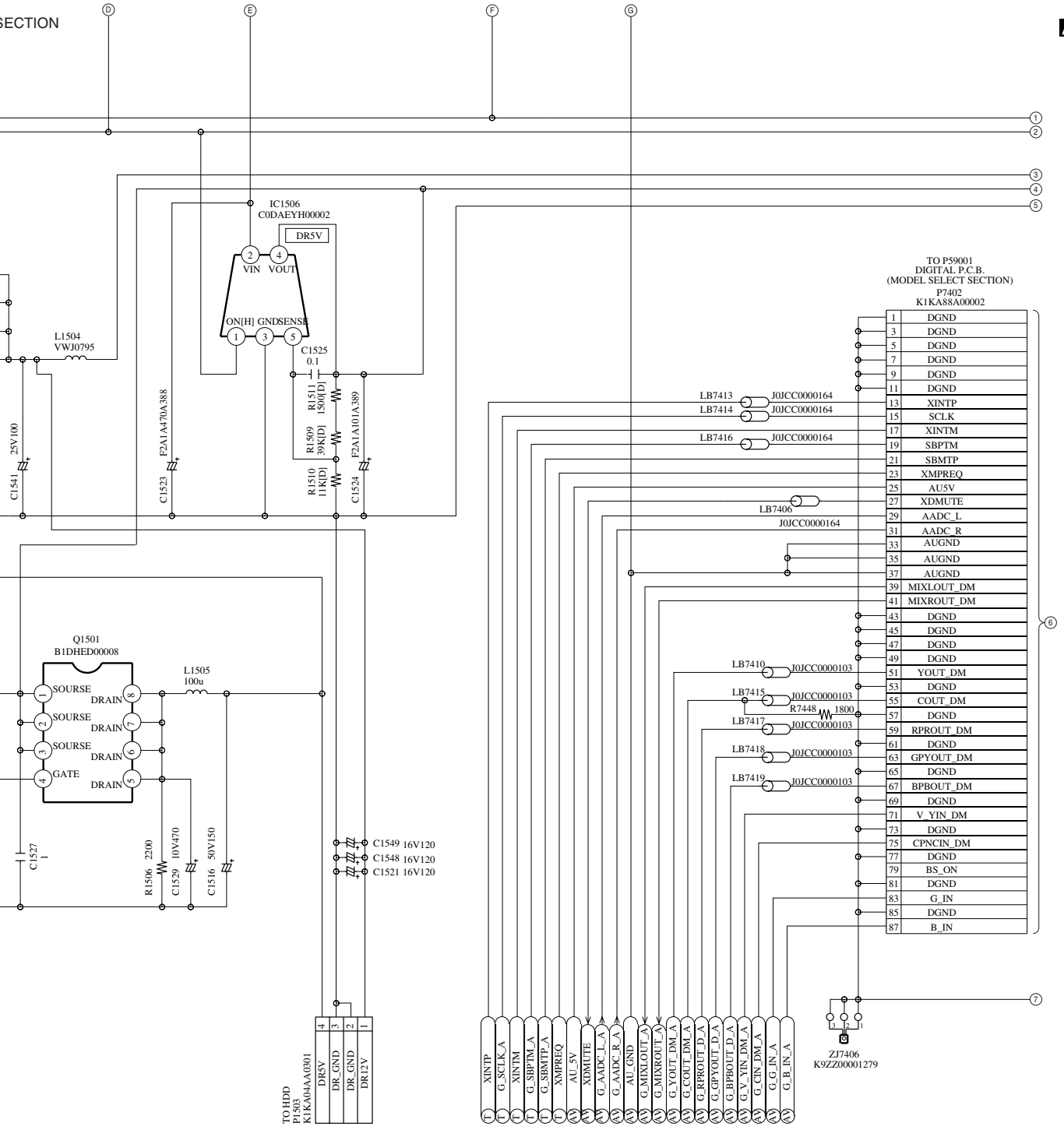
13.5. Main Net (3/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)



LOCATION MAP

1/4	2/4
3/4	4/4

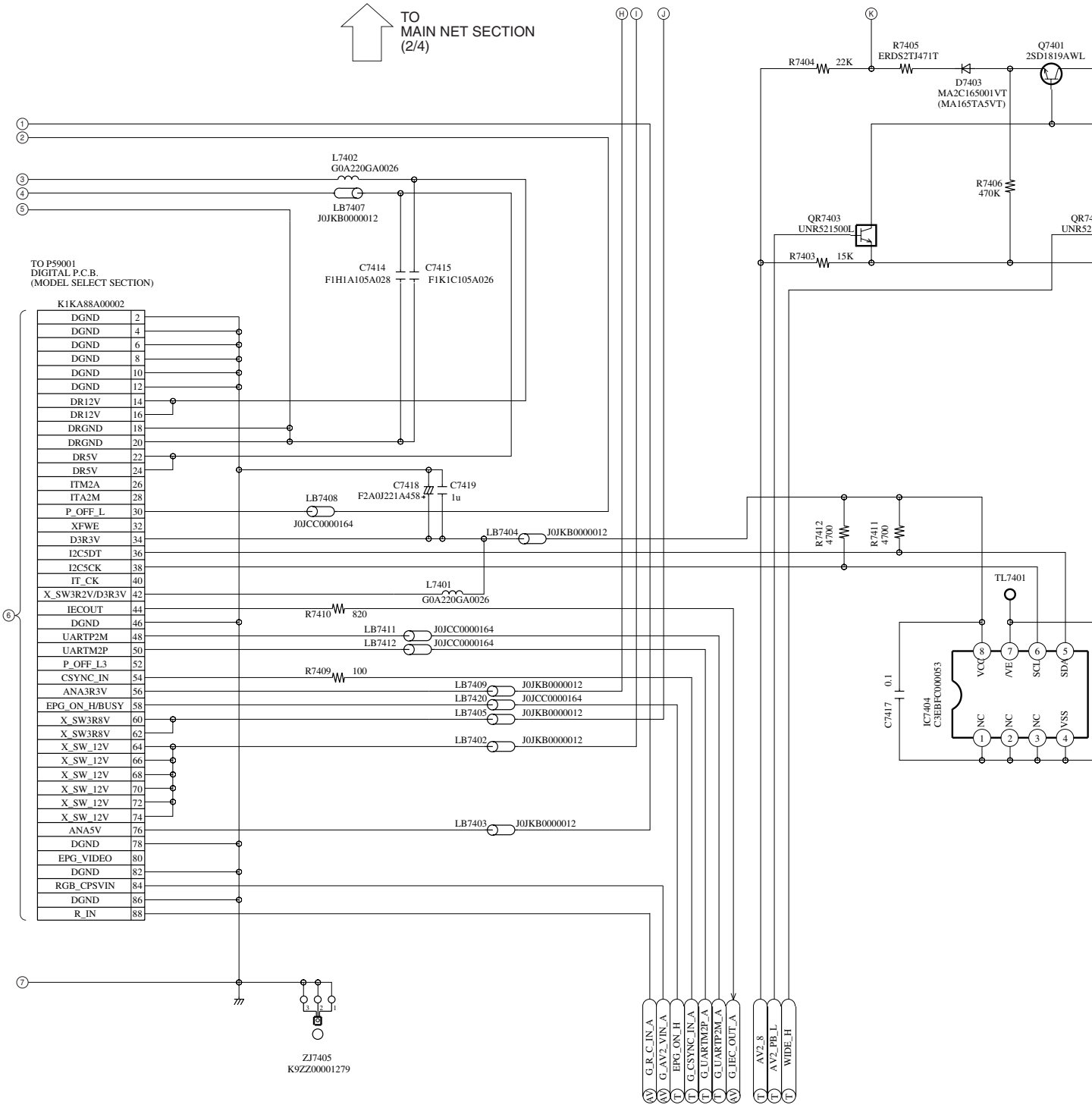
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.



M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

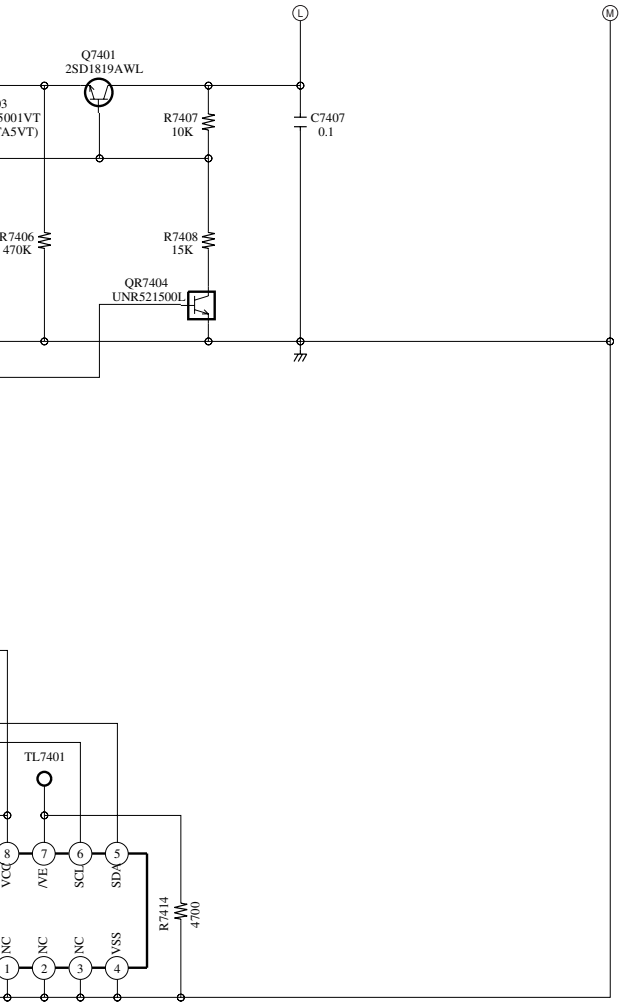
DMR-EH55EC/EP,EH56EG
Main Net(3/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)

13.6. Main Net (4/4) Section (Main P.C.B. (1/4)) Schematic Diagram (M)



M:Main Net Section:(P
AV:A/V I/O Section:(Pa
DE:Nicam Decoder Se
T:Timer Section:(Page

6 7 8



A

LOCATION MAP

1/4	2/4
3/4	4/4

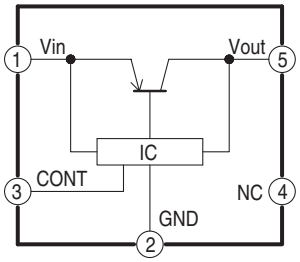
Net Section:(Page: A)
I/O Section:(Page: B)
am Decoder Section:(Page: C)
Section:(Page: D)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

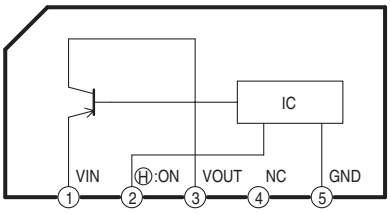
DMR-EH55EC/EP,EH56EG
Main Net(4/4) Section
(Main P.C.B.(1/4))
Schematic Diagram(M)

8 | 9 | 10

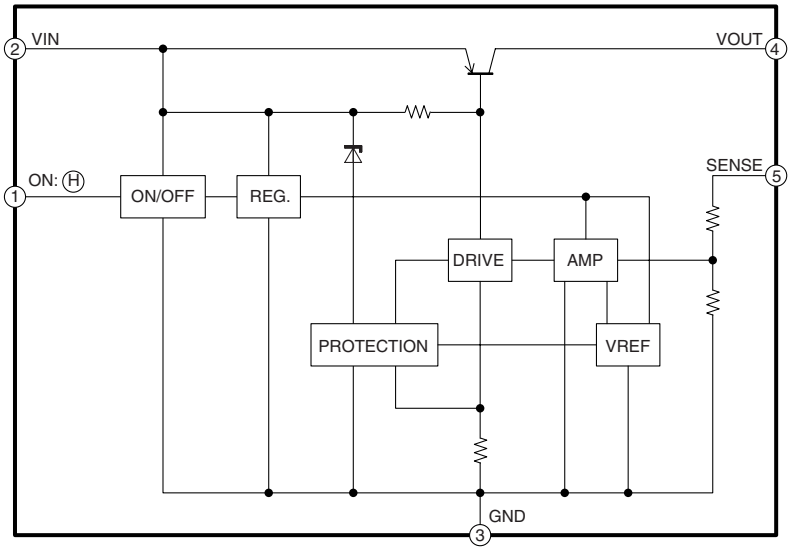
IC1505
XSW +3.3V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



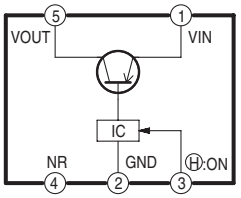
IC1510
TU +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



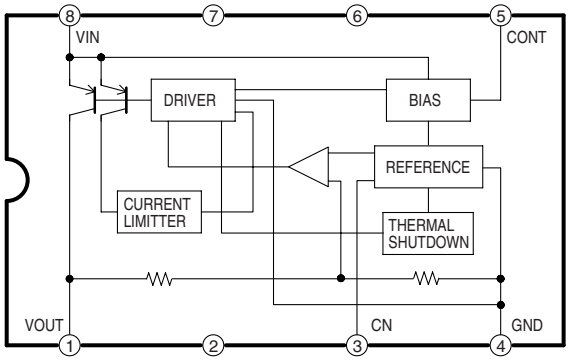
IC1506
DR +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



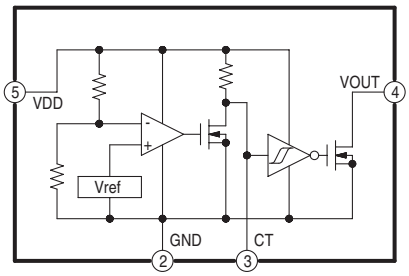
IC1520
ANA +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



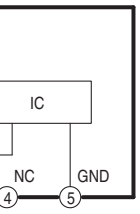
IC1507
XSW +5.2V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



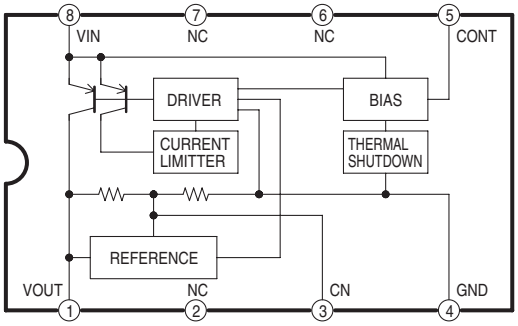
IC1522
RESET
IC-DETAIL BLOCK DIAGRAM



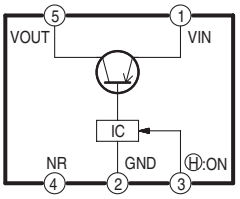
REGULATOR
AGRAM



IC1521
ANA +3.3V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

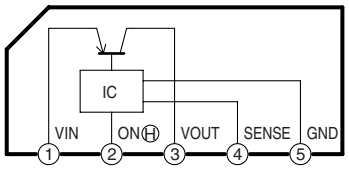


IC7402
BOOSTER +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

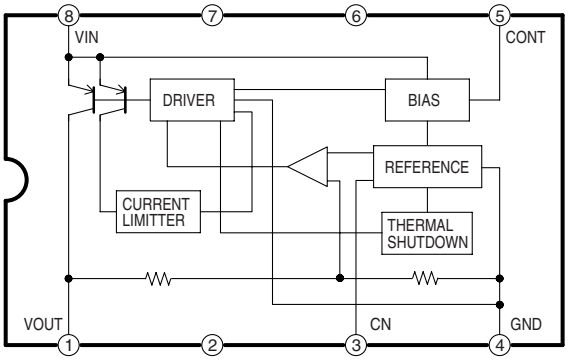


REGULATOR
AGRAM

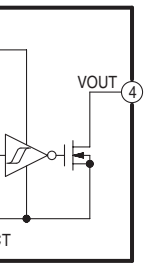
IC7401
PS +11.6V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



IC7403
PS +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

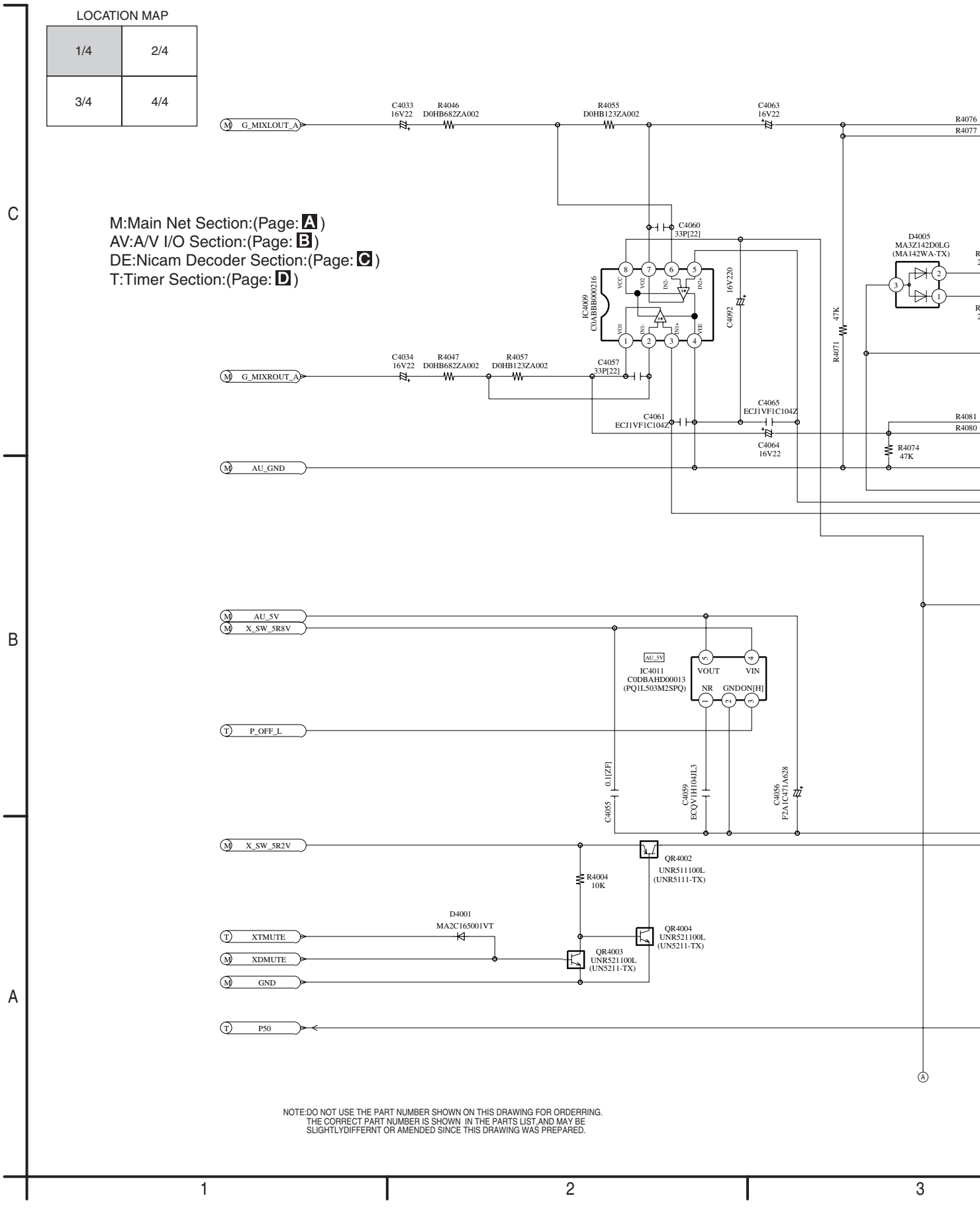


DIAGRAM



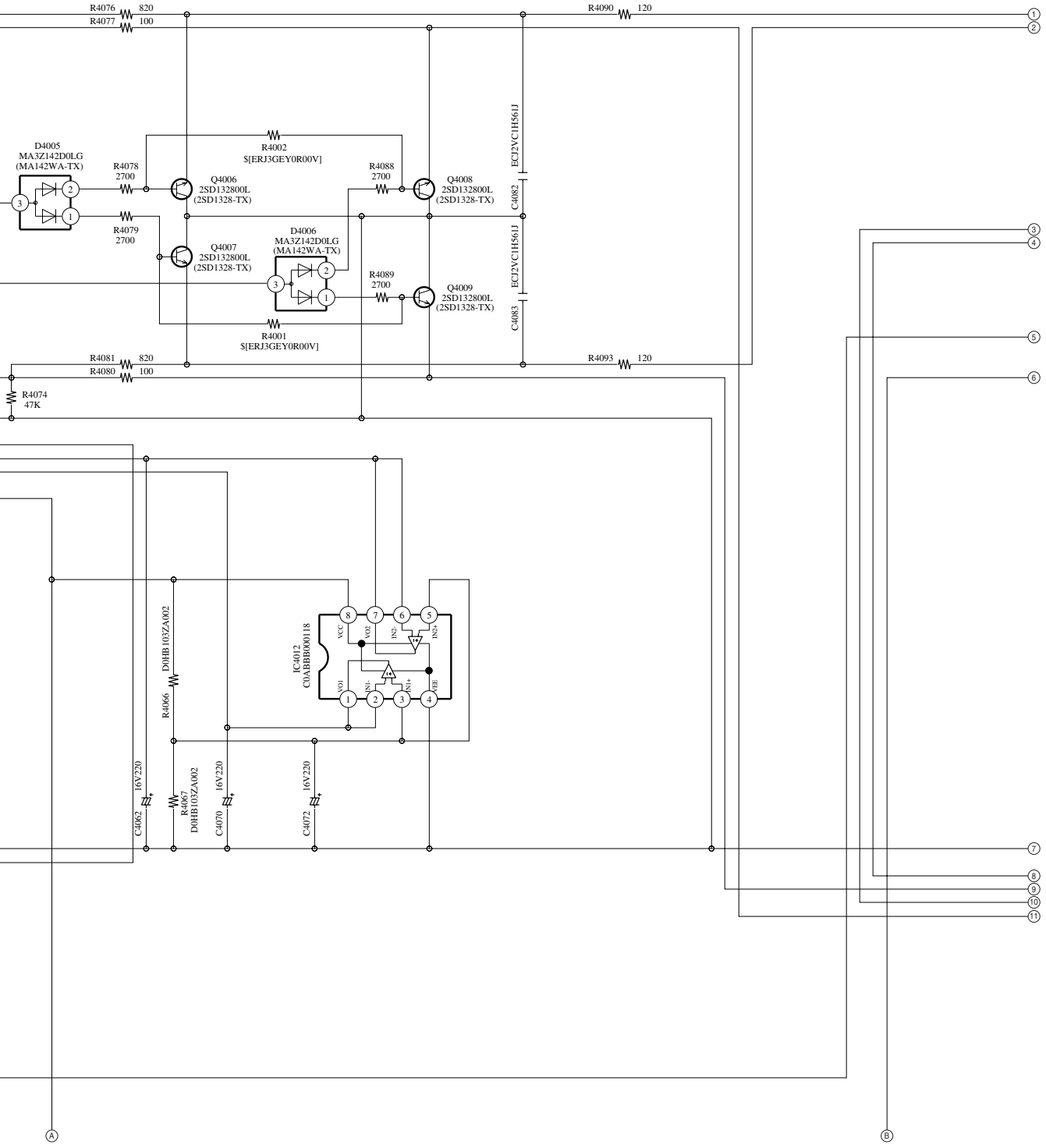
IC1505 Detail Block Diagram
IC1506 Detail Block Diagram
IC1507 Detail Block Diagram
IC1510 Detail Block Diagram
IC1520 Detail Block Diagram
IC1521 Detail Block Diagram
IC1522 Detail Block Diagram
IC7401 Detail Block Diagram
IC7402 Detail Block Diagram
IC7403 Detail Block Diagram
DMR-EH55EC/EP,EH56EG IC-Detail Block Diagram

13.7. A/V I/O (1/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

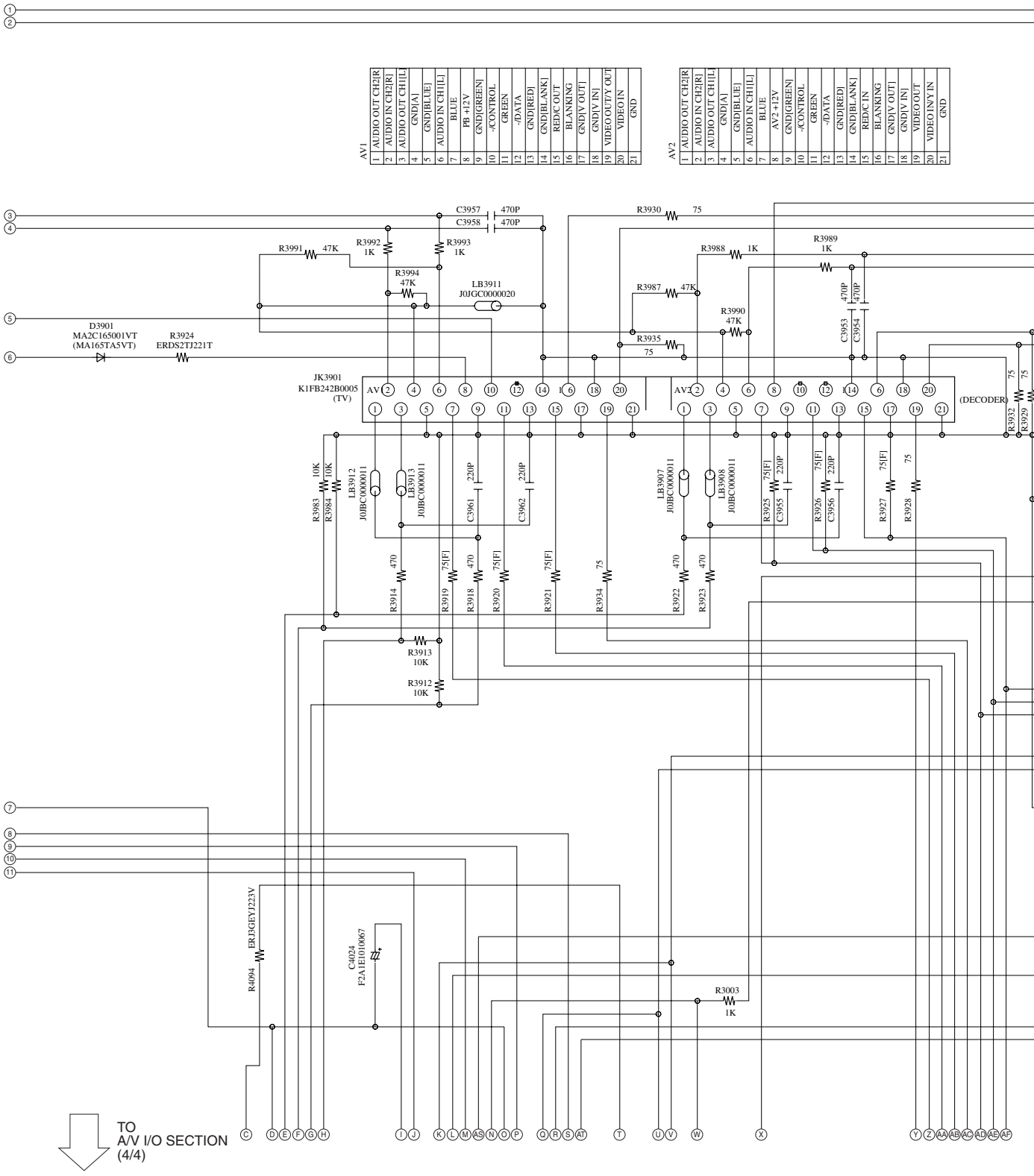
B



DMR-EH55EC/EP,EH56EG
A/V I/O(1/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

3 4 5

13.8. A/V I/O (2/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

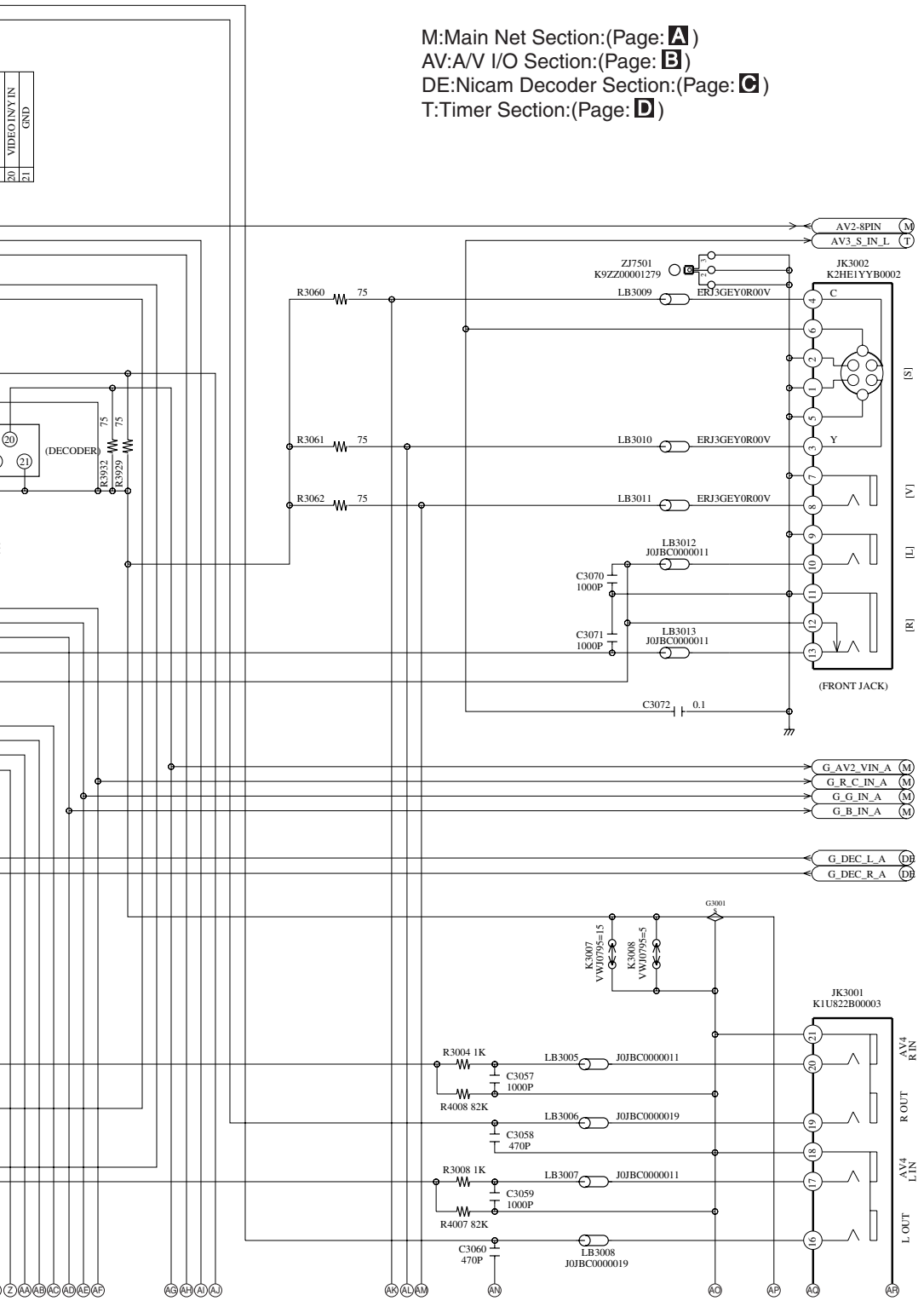


LOCATION MAP

1/4	2/4
3/4	4/4

B

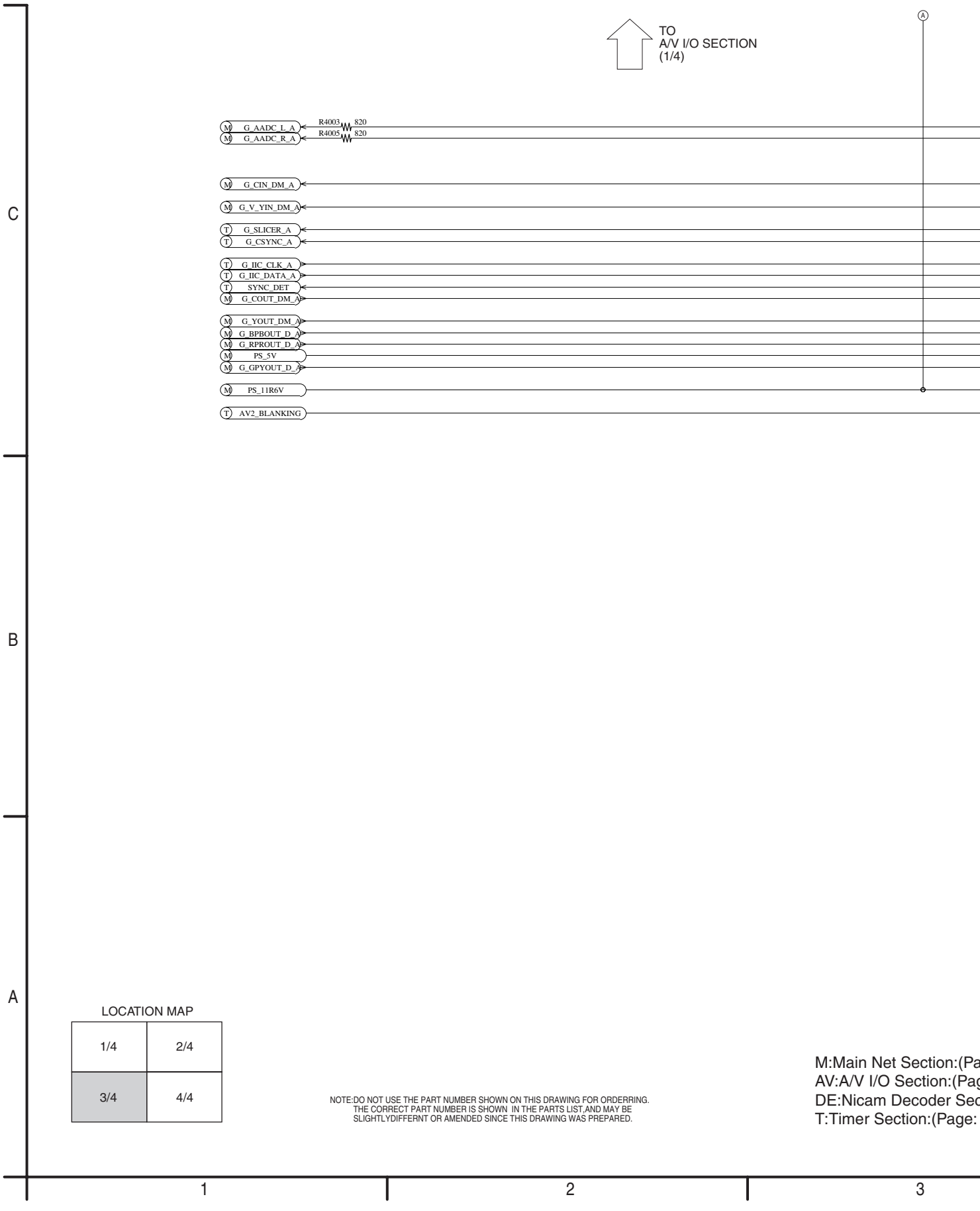
M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
A/V I/O(2/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

13.9. A/V I/O (3/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)

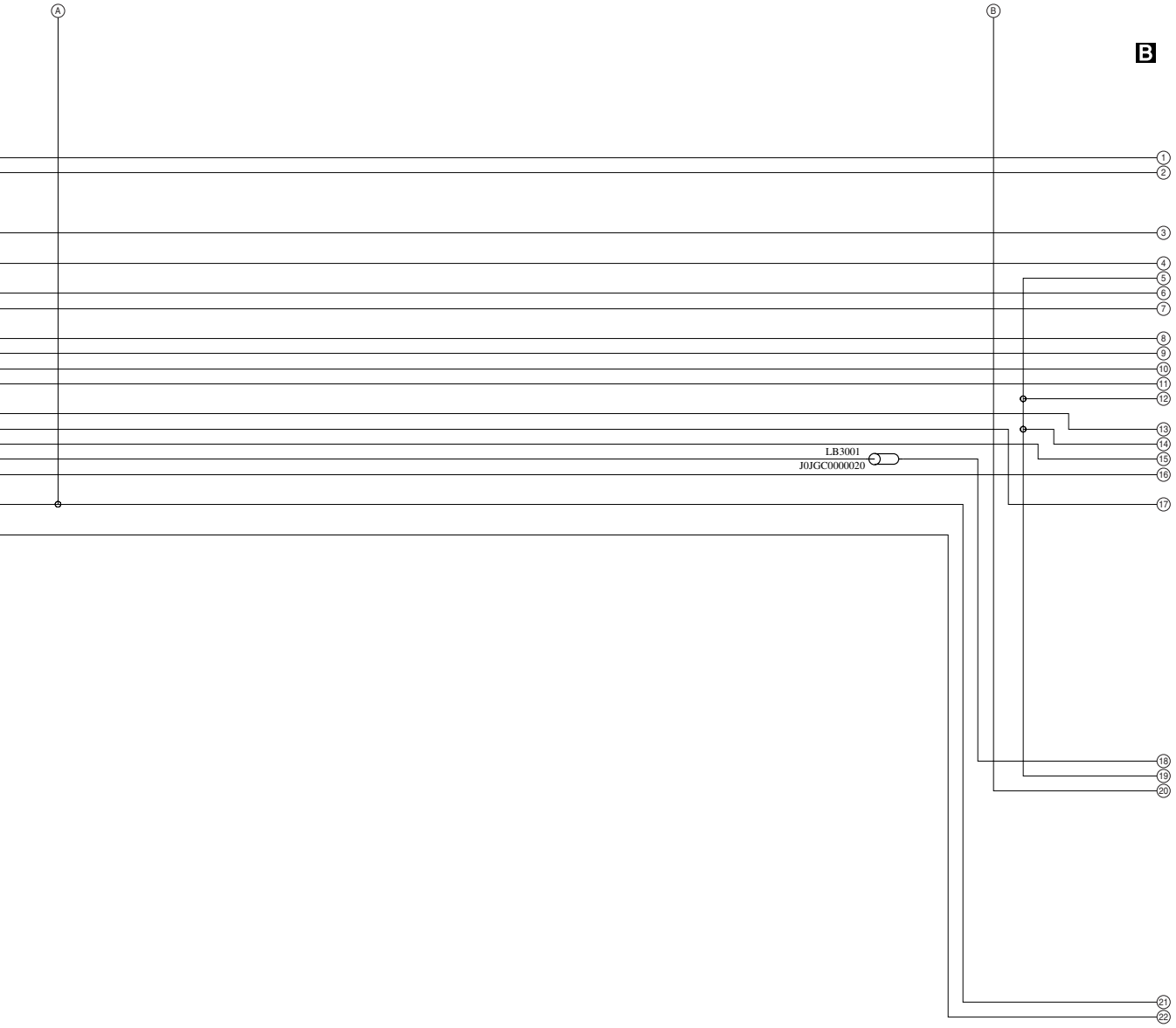


LOCATION MAP

1/4	2/4
3/4	4/4

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

M:Main Net Section:(Pa
AV:A/V I/O Section:(Pag
DE:Nicam Decoder Sec
T:Timer Section:(Page:

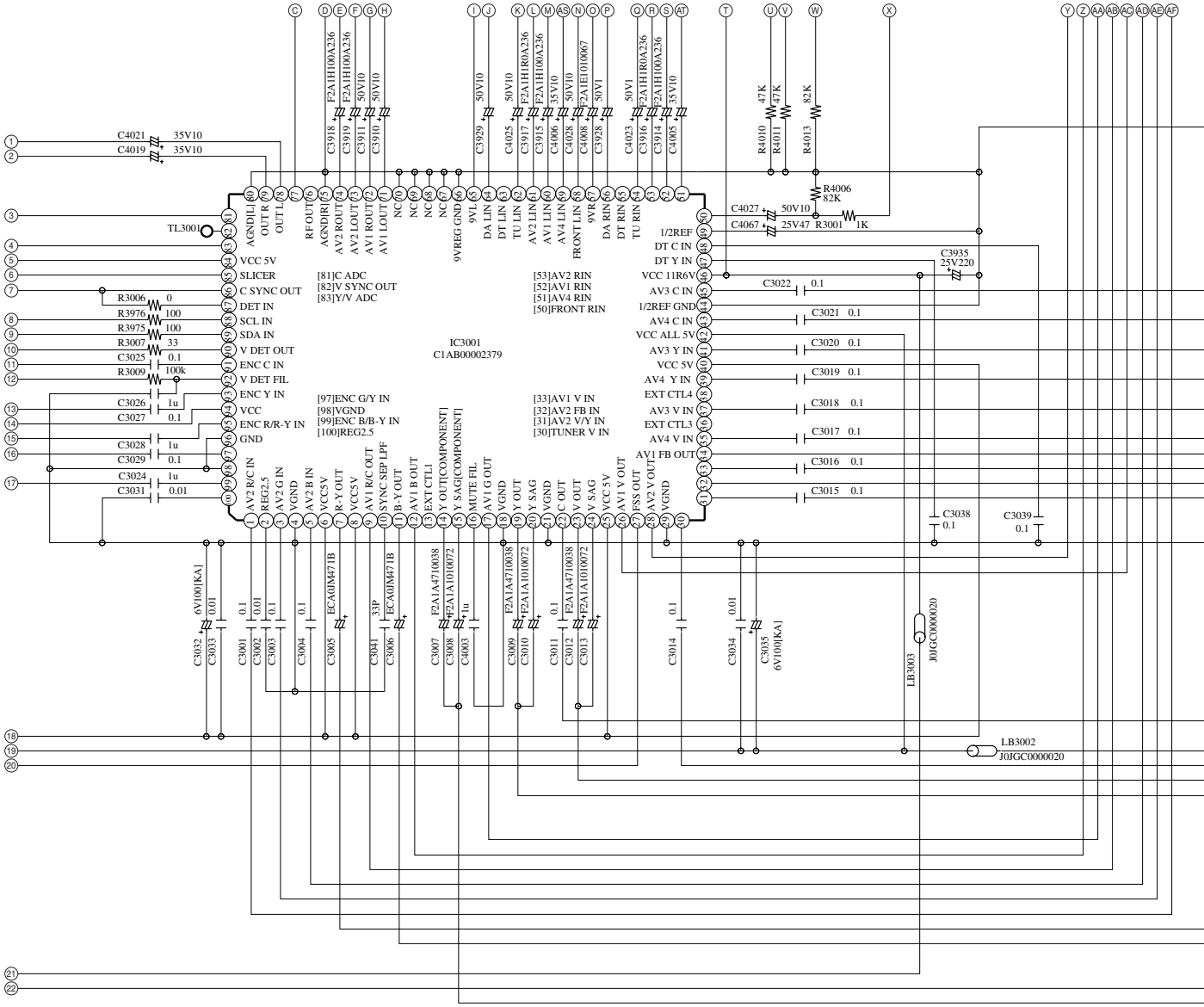


Net Section:(Page: A)
O Section:(Page: B)
m Decoder Section:(Page: C)
Section:(Page: D)

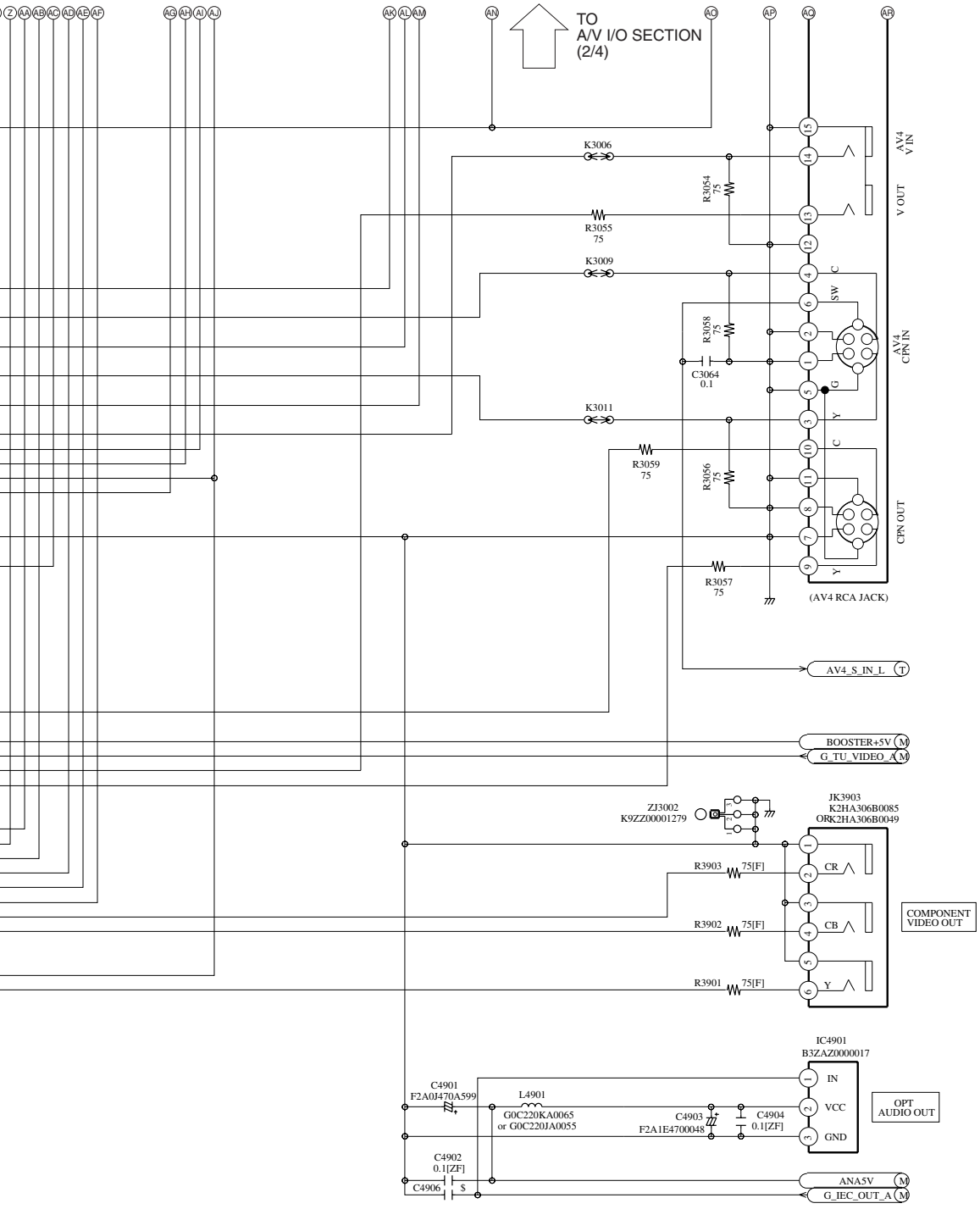
DMR-EH55EC/EP,EH56EG
A/V I/O(3/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

3 | 4 | 5

13.10. A/V I/O (4/4) Section (Main P.C.B. (2/4)) Schematic Diagram (AV)



M:Main Net Sectio
AV:A/V I/O Sectio
DE:Nicam Decode
T:Timer Section:(



B

LOCATION MAP

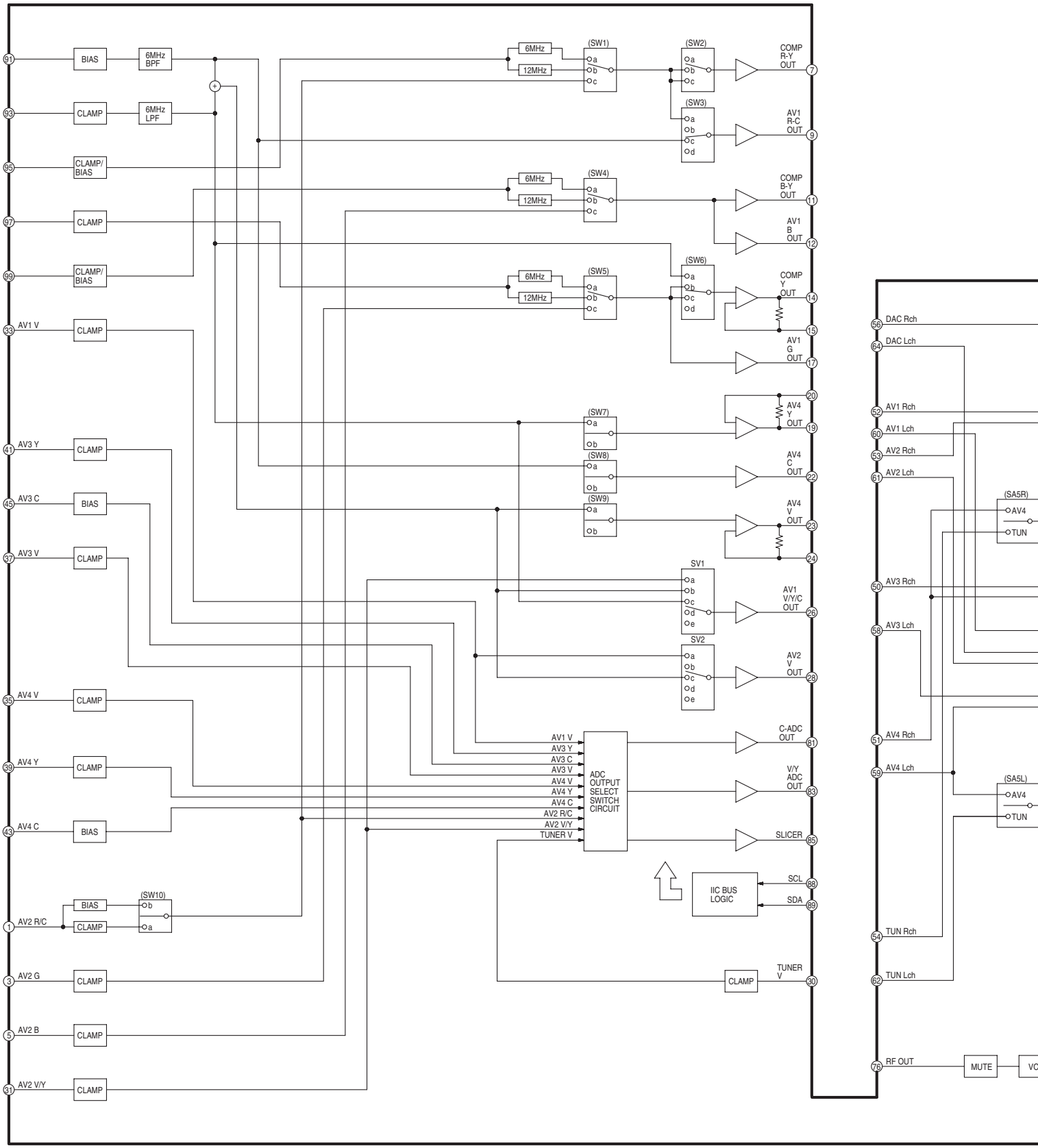
1/4	2/4
3/4	4/4

Main Net Section:(Page: A)
A/V I/O Section:(Page: B)
:Nicam Decoder Section:(Page: C)
imer Section:(Page: D)

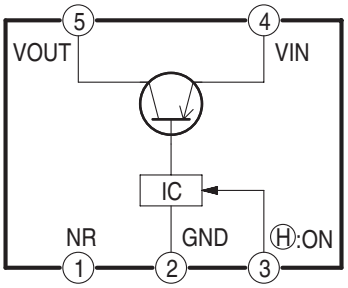
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

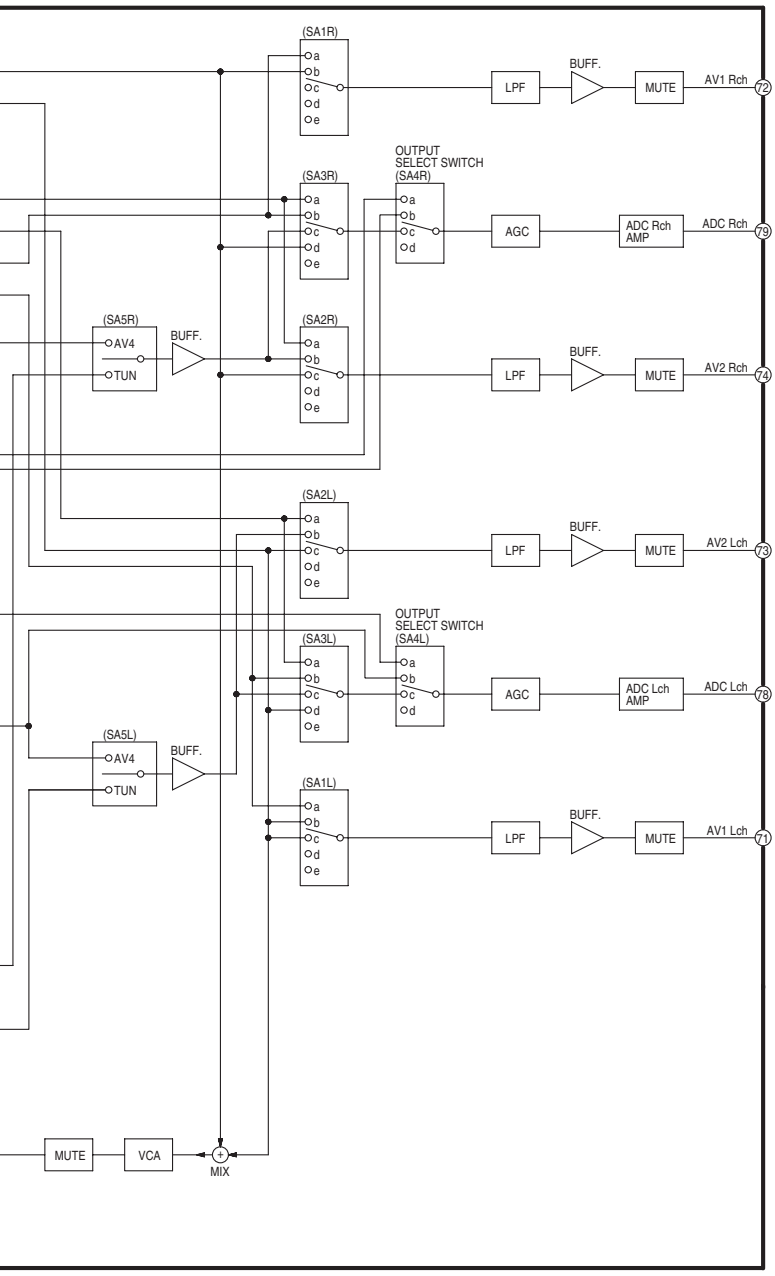
DMR-EH55EC/EP,EH56EG
A/V I/O(4/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

IC3001
VIDEO/AUDIO PROCESSOR
IC-DETAIL BLOCK DIAGRAM



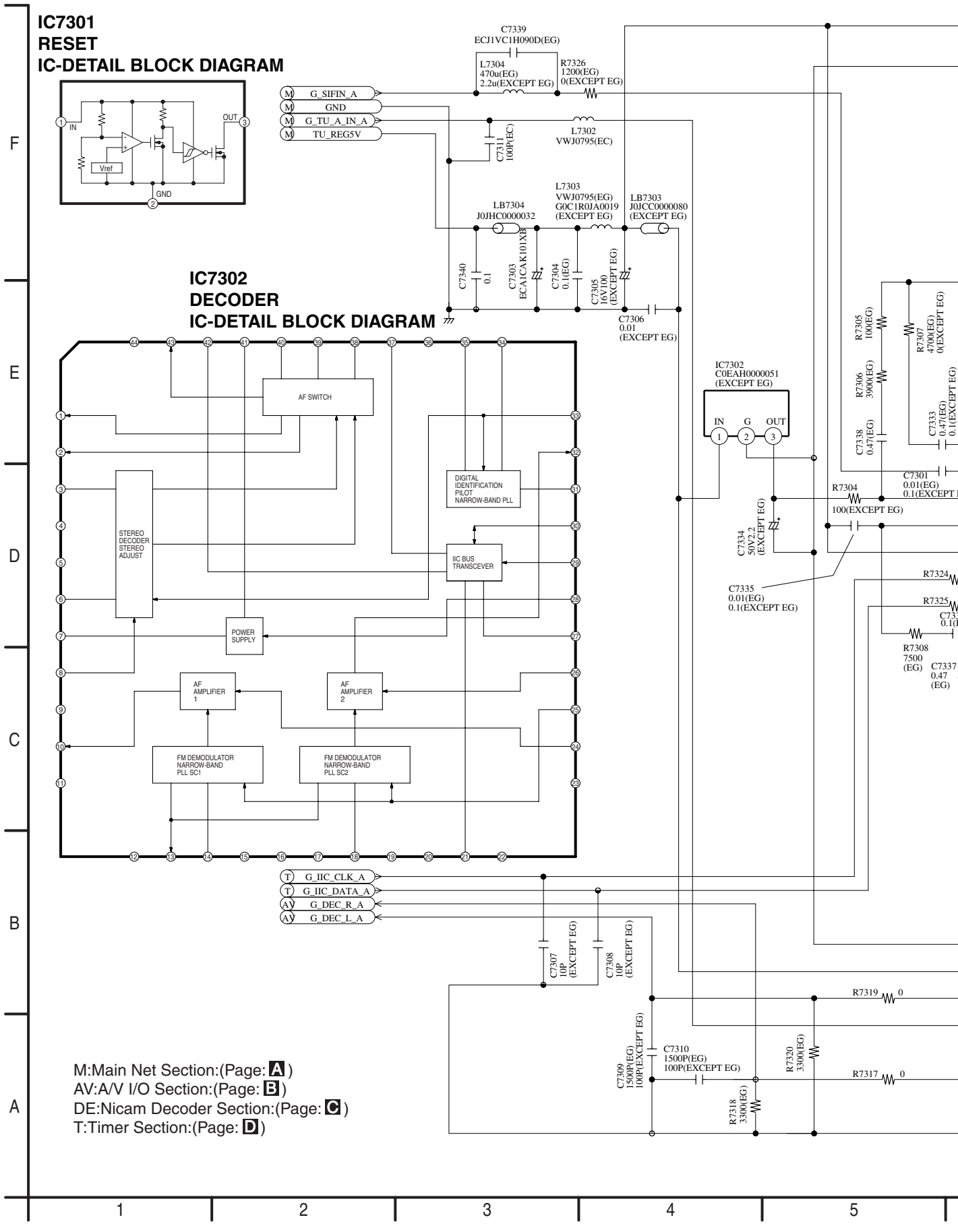
IC4011
AU +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

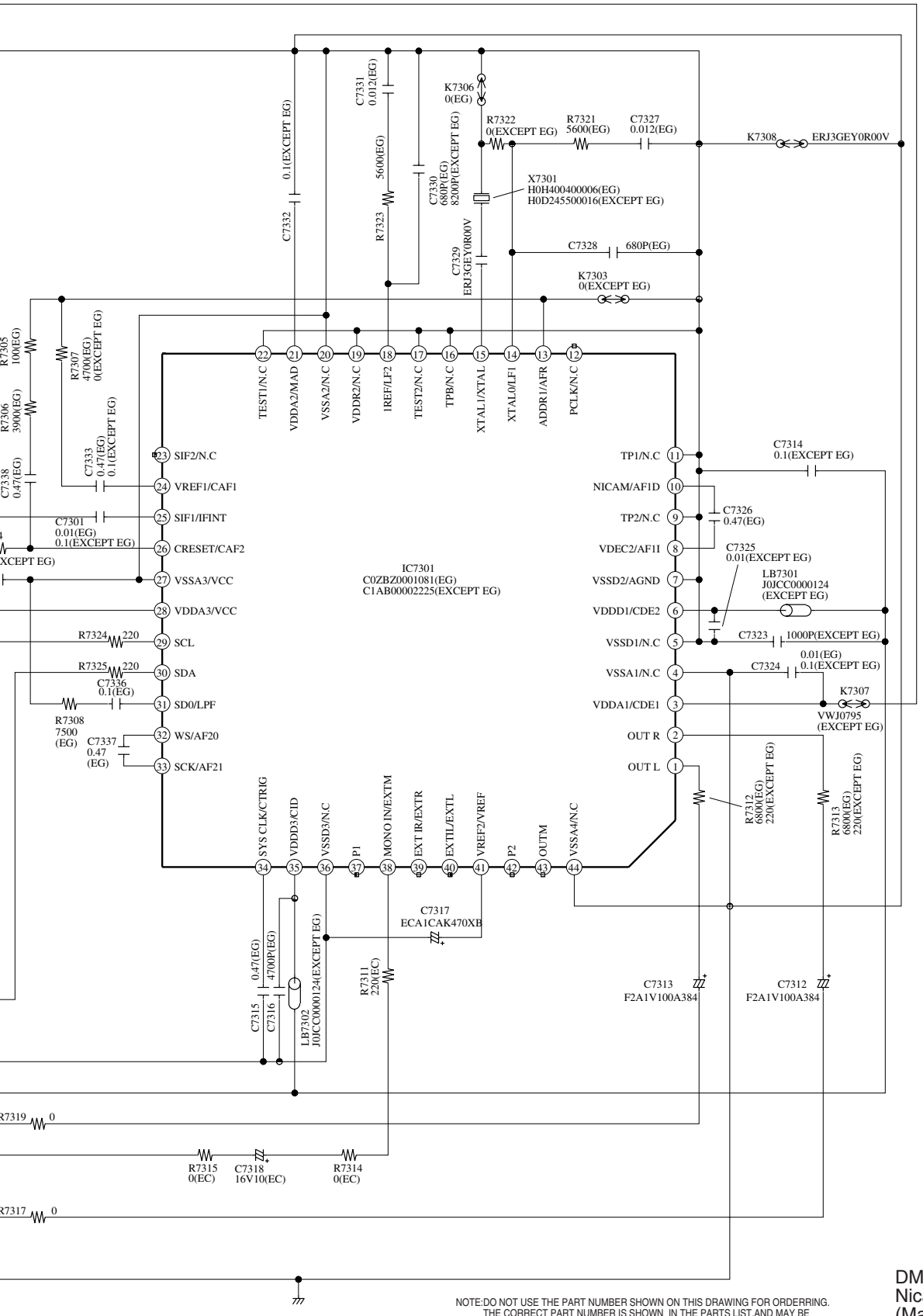




IC3001 Detail Block Diagram
IC4011 Detail Block Diagram
DMR-EH55EC/EP,EH56EG IC-Detail Block Diagram

13.11. Nicam Decoder Section (Main P.C.B. (3/4)) Schematic Diagram (DE)





NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

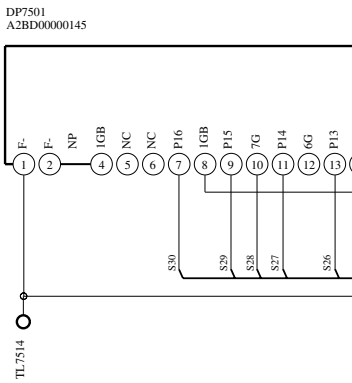
DMR-EH55EC/EP,EH56EG
Nicam Decoder Section
(Main P.C.B.(3/4))
Schematic Diagram(DE)

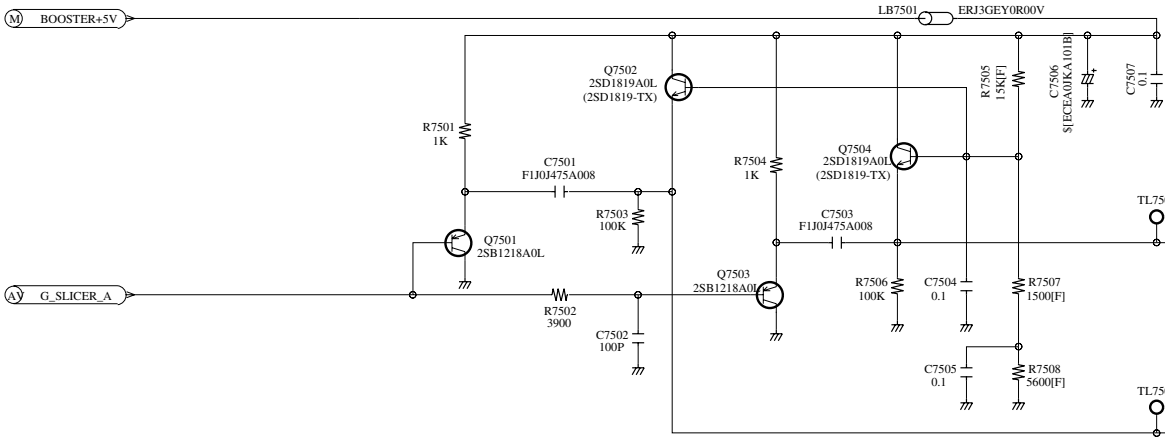
13.12. Timer (1/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)

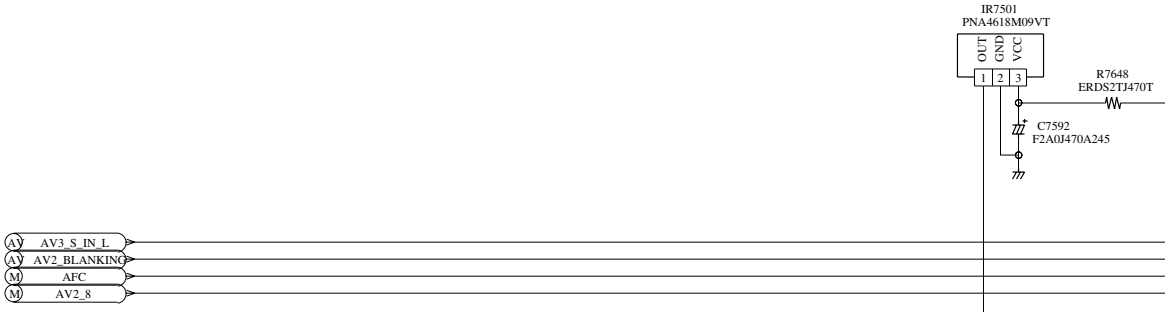
LOCATION MAP

1/4	2/4
3/4	4/4

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)







NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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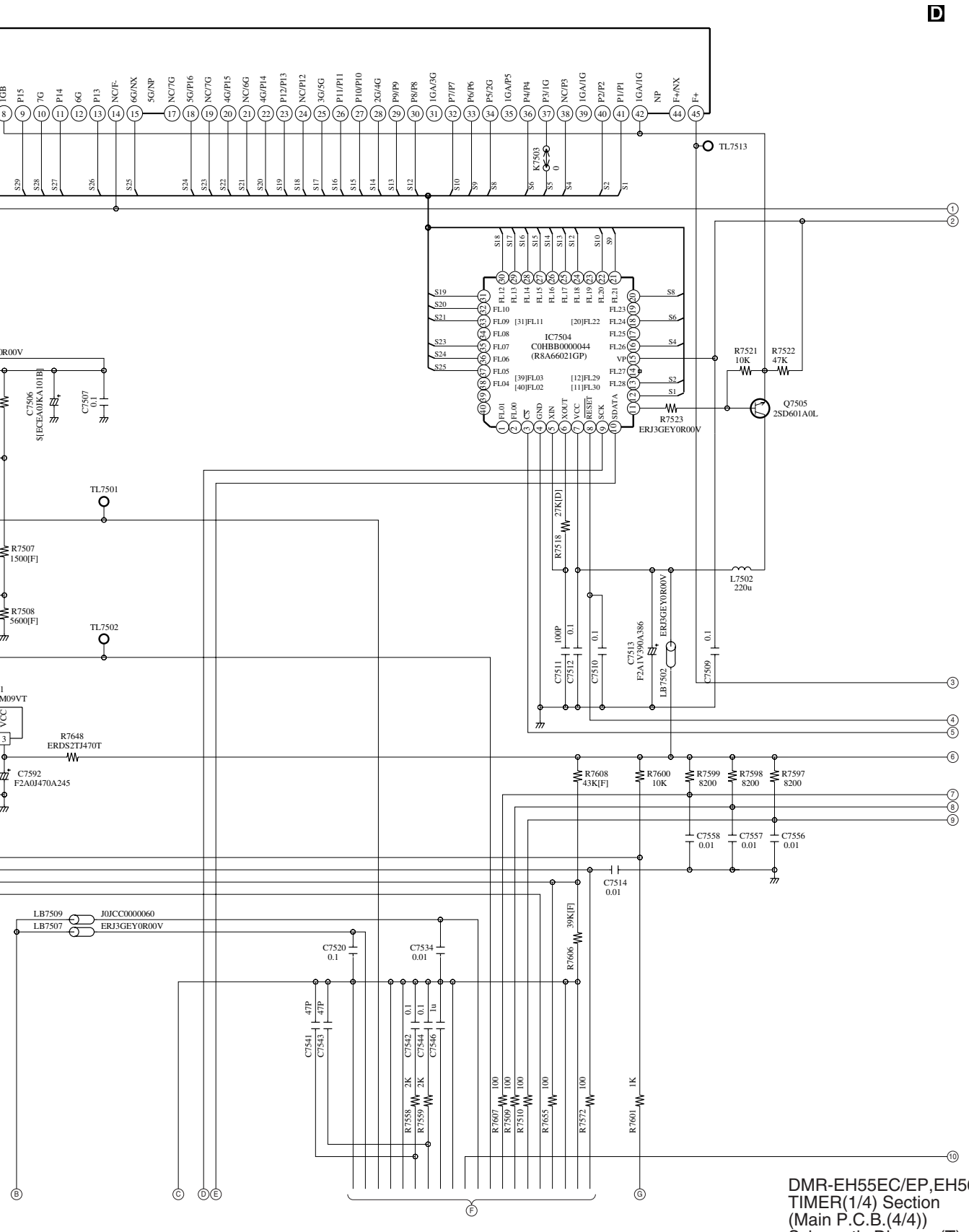
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

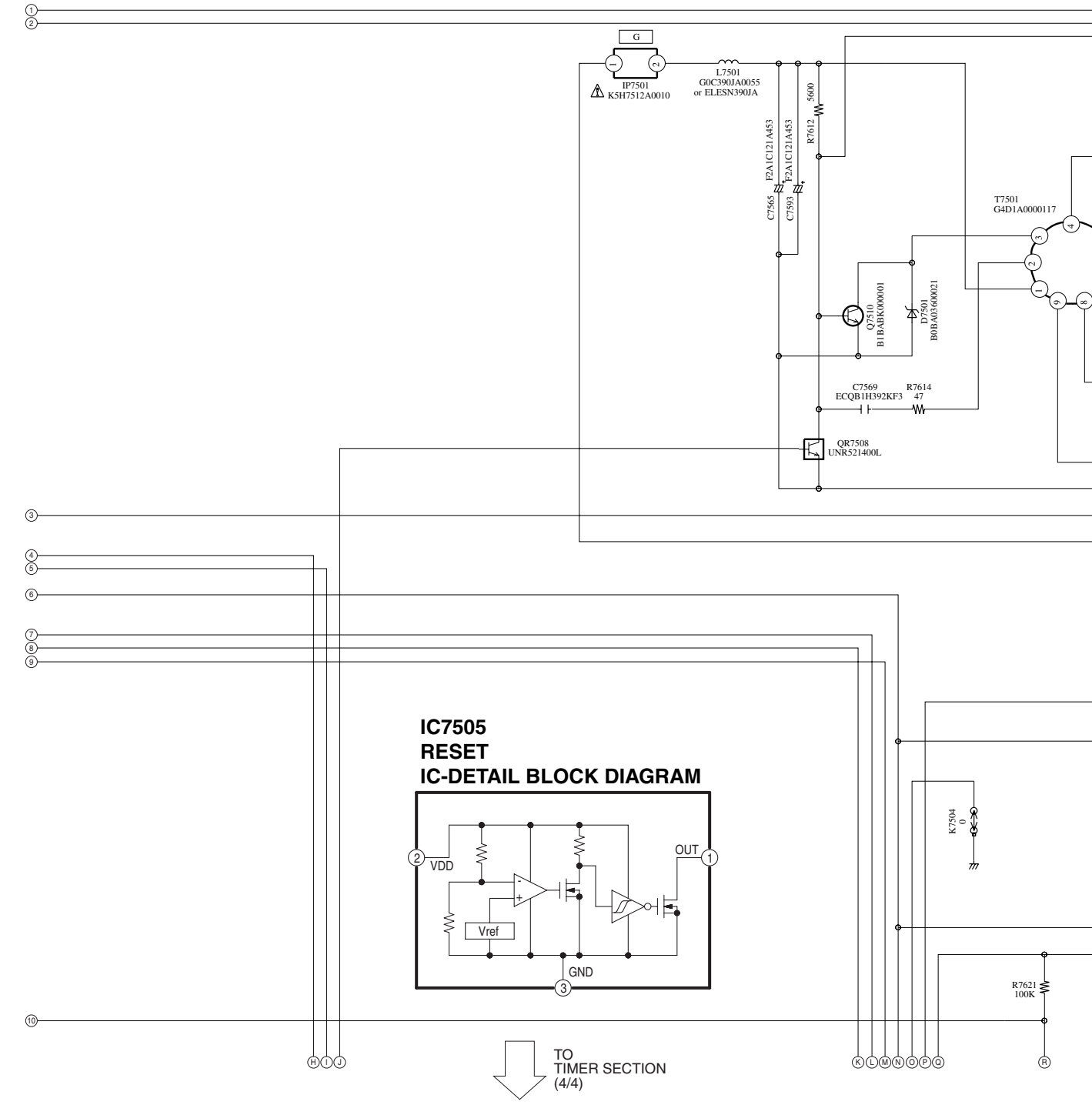
TO
TIMER SECTION
(3/4)



DMR-EH55EC/EP,EH56EG
TIMER(1/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

3 4 5

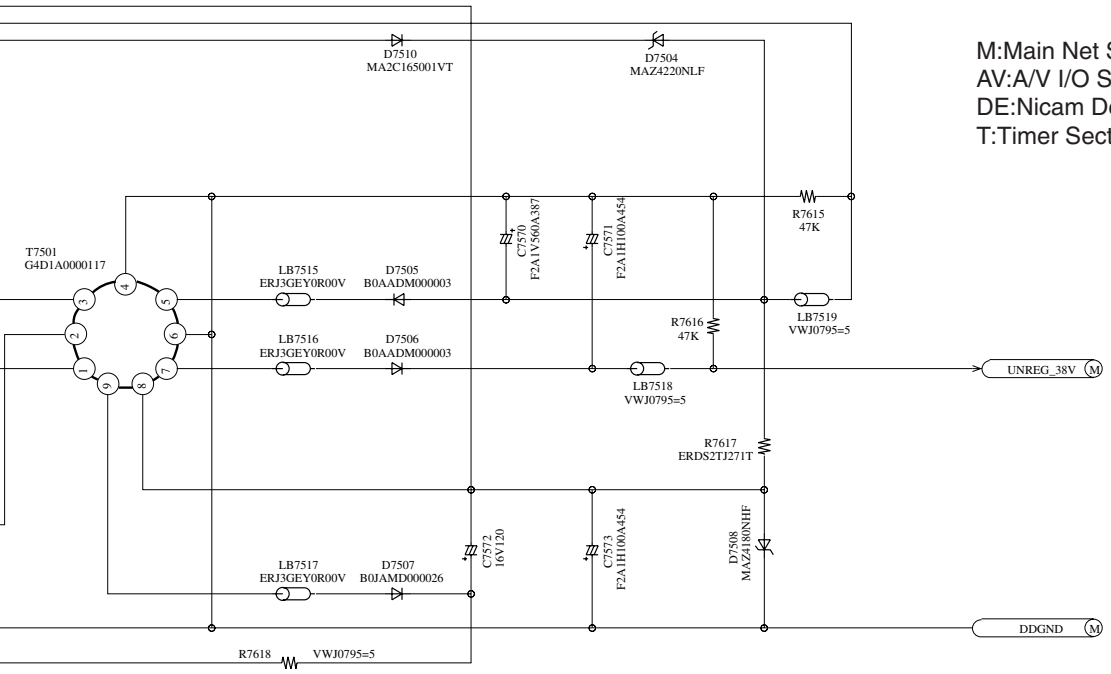
13.13. Timer (2/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)



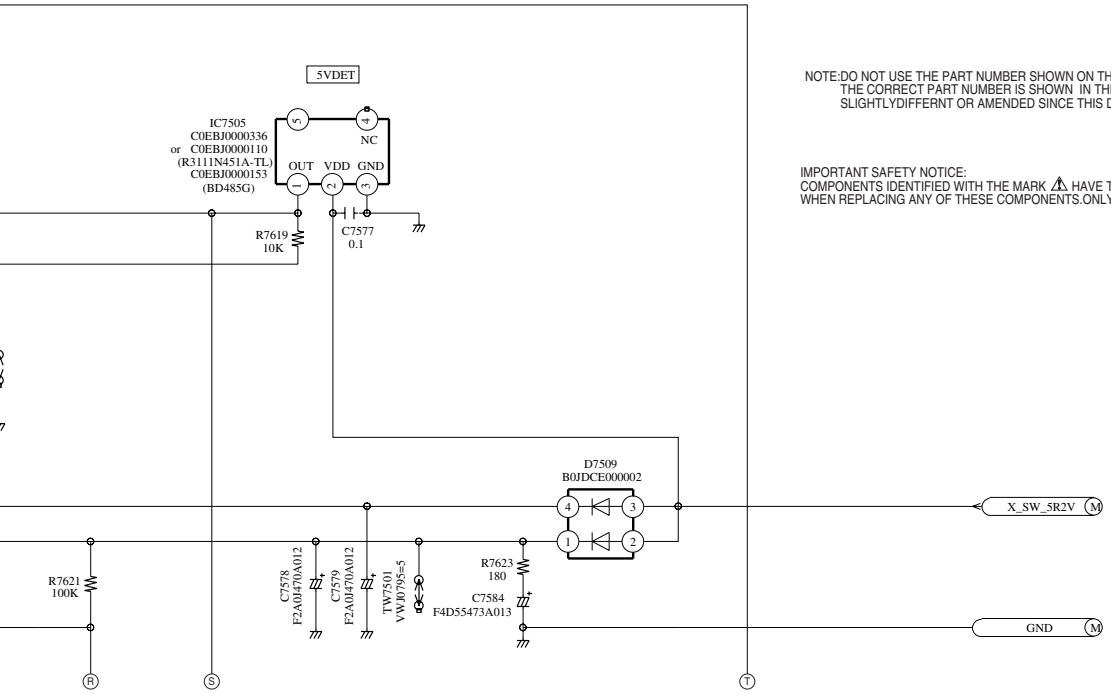
LOCATION MAP

1/4	2/4
3/4	4/4

D



M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
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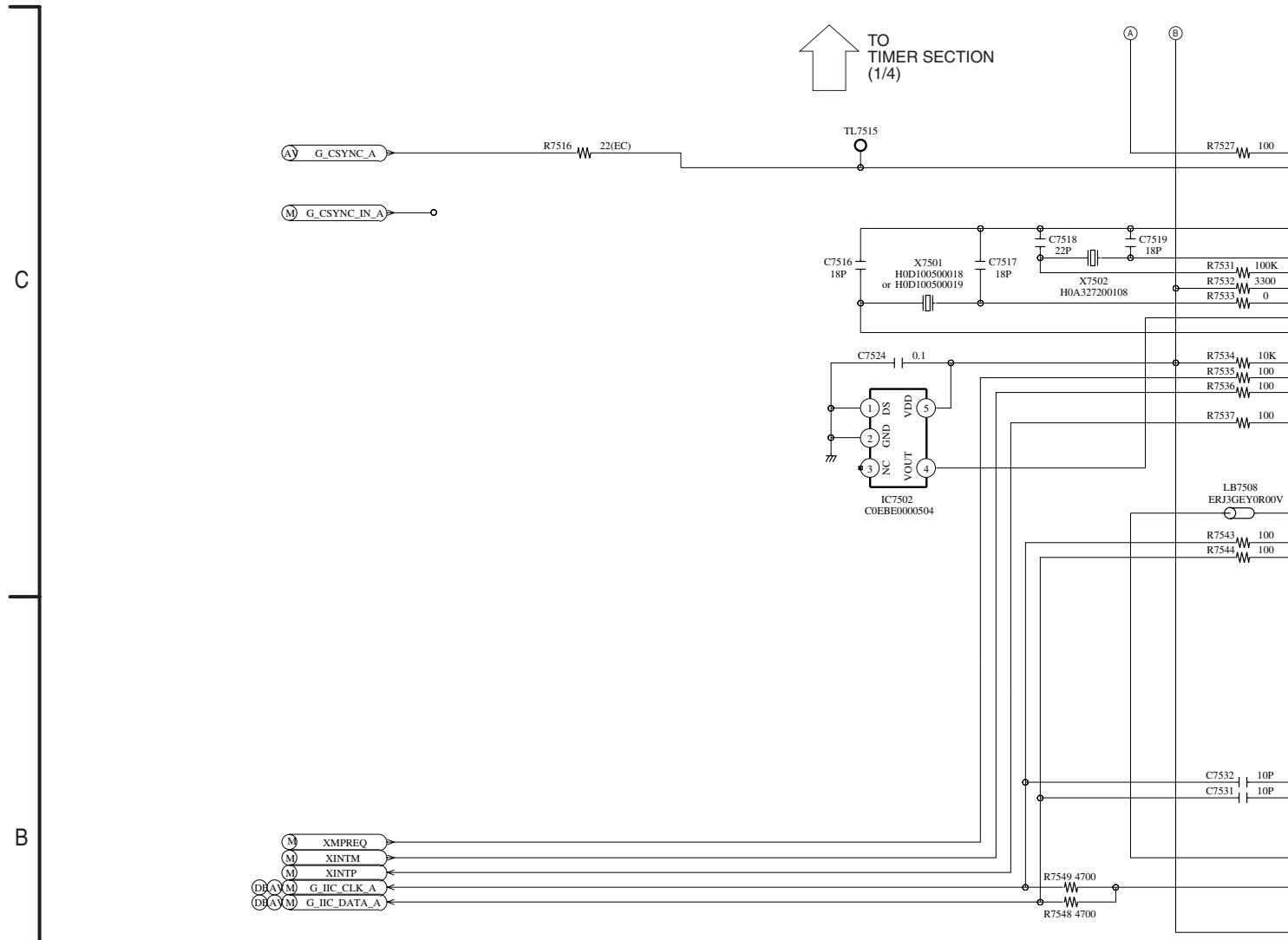
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS.ONLY THE SAME TYPE.

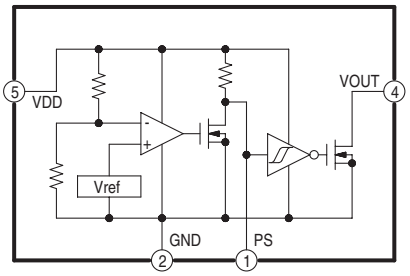
DMR-EH55EC/EP,EH56EG
TIMER(2/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

8	9	10

13.14. Timer (3/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)



IC7502
X RESET
IC-DETAIL BLOCK DIAGRAM



LOCATION MAP

1/4	2/4
3/4	4/4

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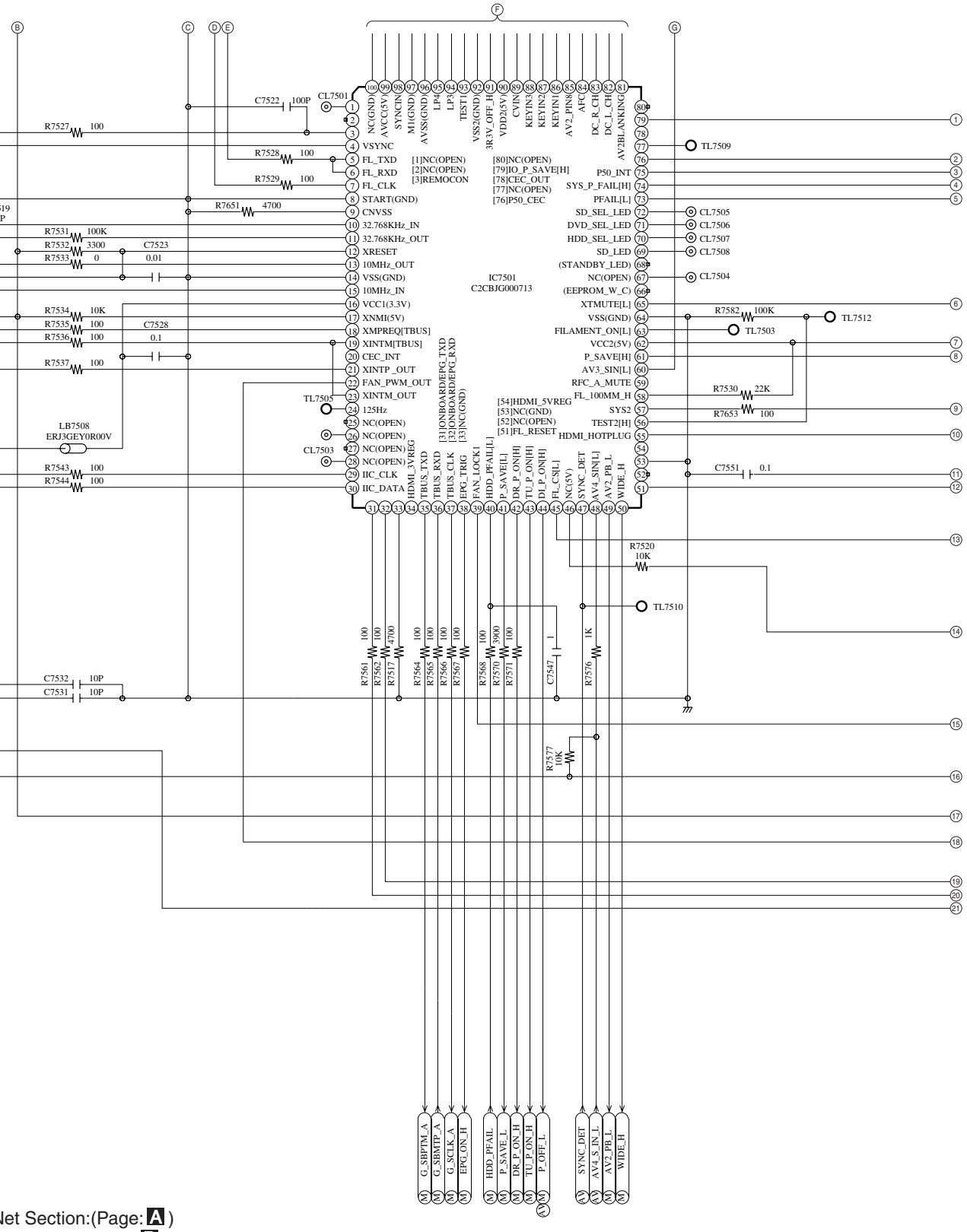
M:Main Net Section:(Pa
AV:A/V I/O Section:(Pag
DE:Nicam Decoder Sec
T:Timer Section:(Page:



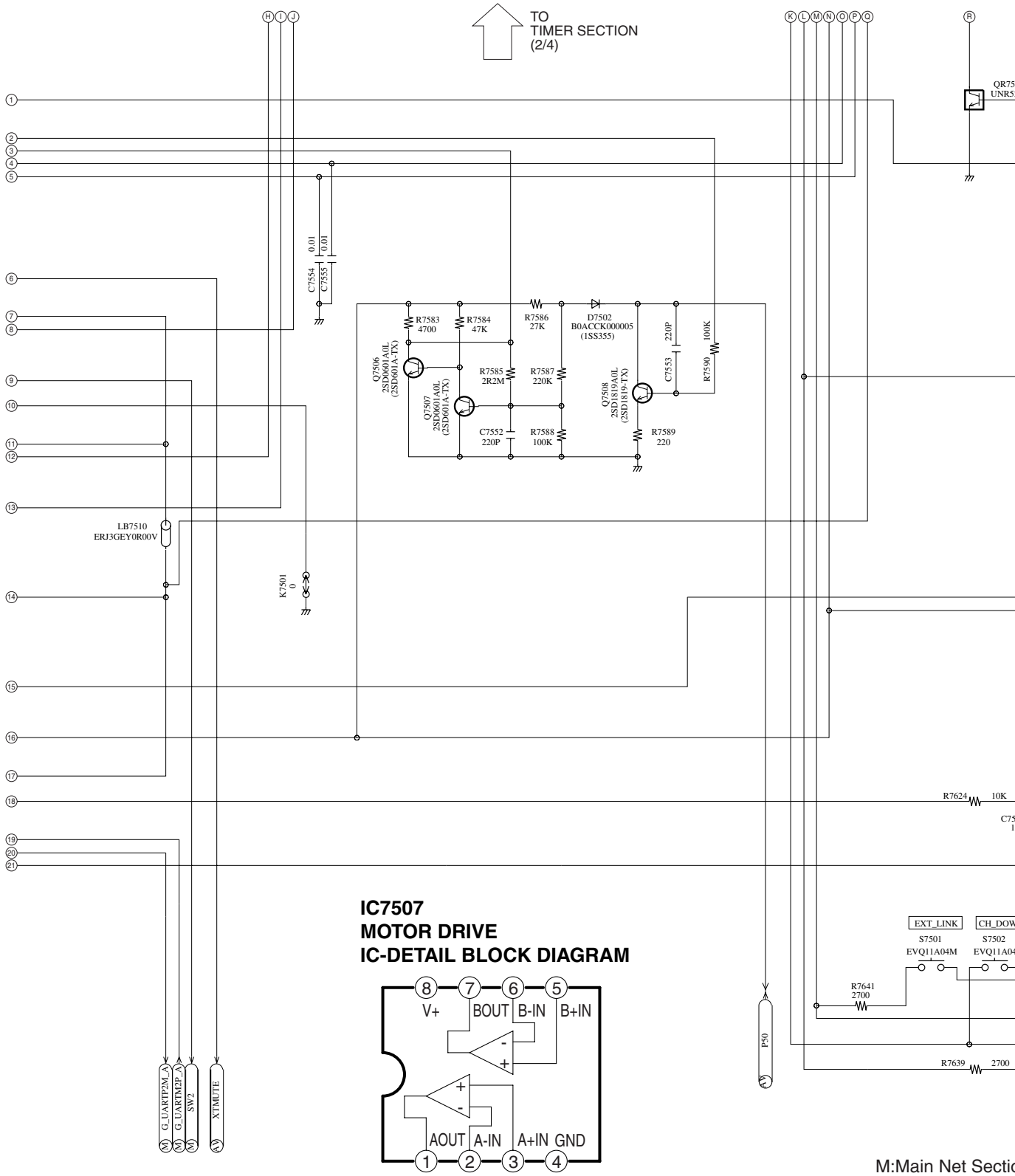
D

Net Section:(Page: A)
O Section:(Page: B)
m Decoder Section:(Page: C)
Section:(Page: D)

DMR-EH55EC/EP,EH56EG
TIMER(3/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

3 | 4 | 5

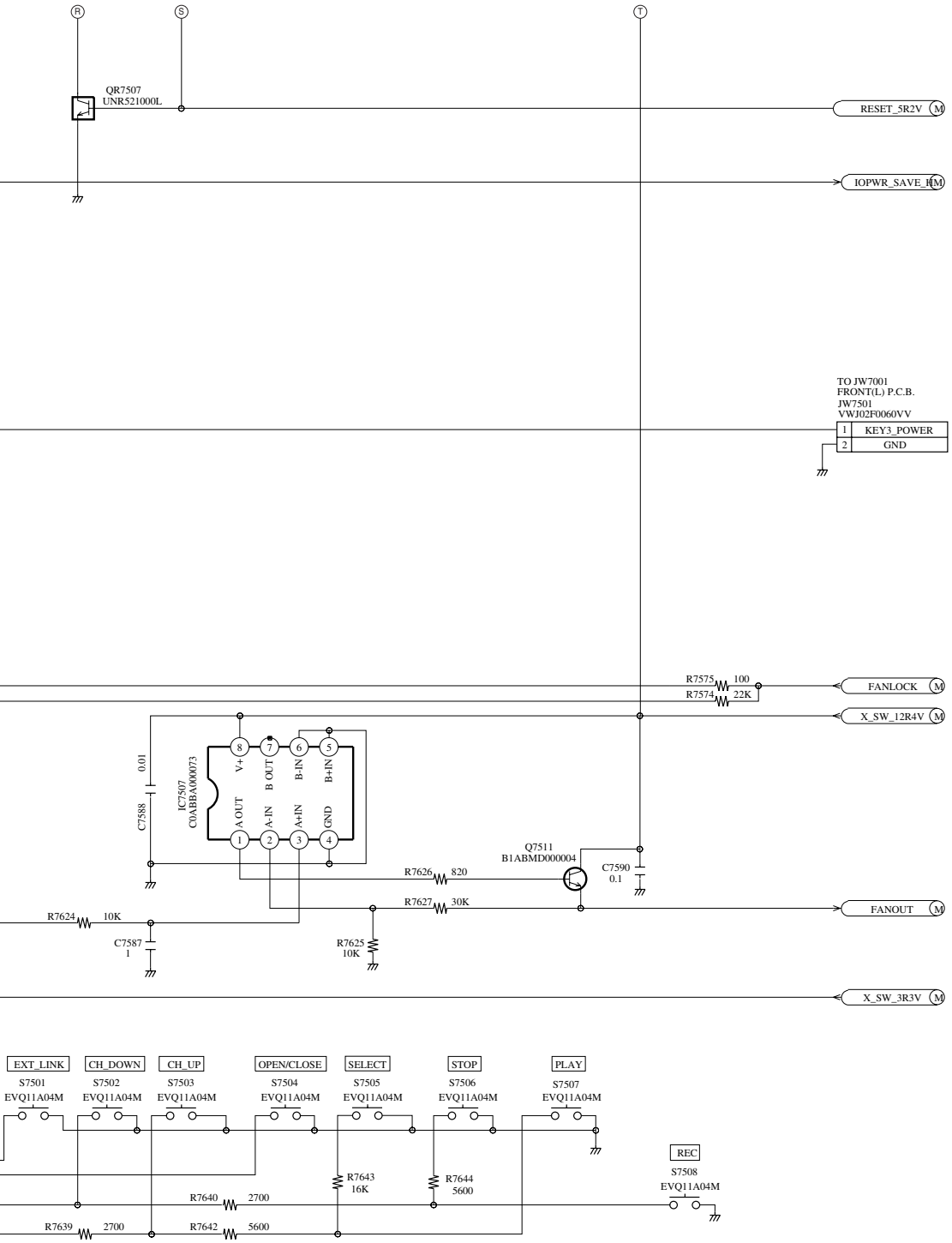
13.15. Timer (4/4) Section (Main P.C.B. (4/4)) Schematic Diagram (T)



IC7507
MOTOR DRIVE
IC-DETAIL BLOCK DIAGRAM

M:Main Net Sectio
AV:A/V I/O Sectio
DE:Nicam Decode
T:Timer Section:(

6 7 8



Main Net Section:(Page: A)
A/V I/O Section:(Page: B)
:Nicam Decoder Section:(Page: C)
imer Section:(Page: D)

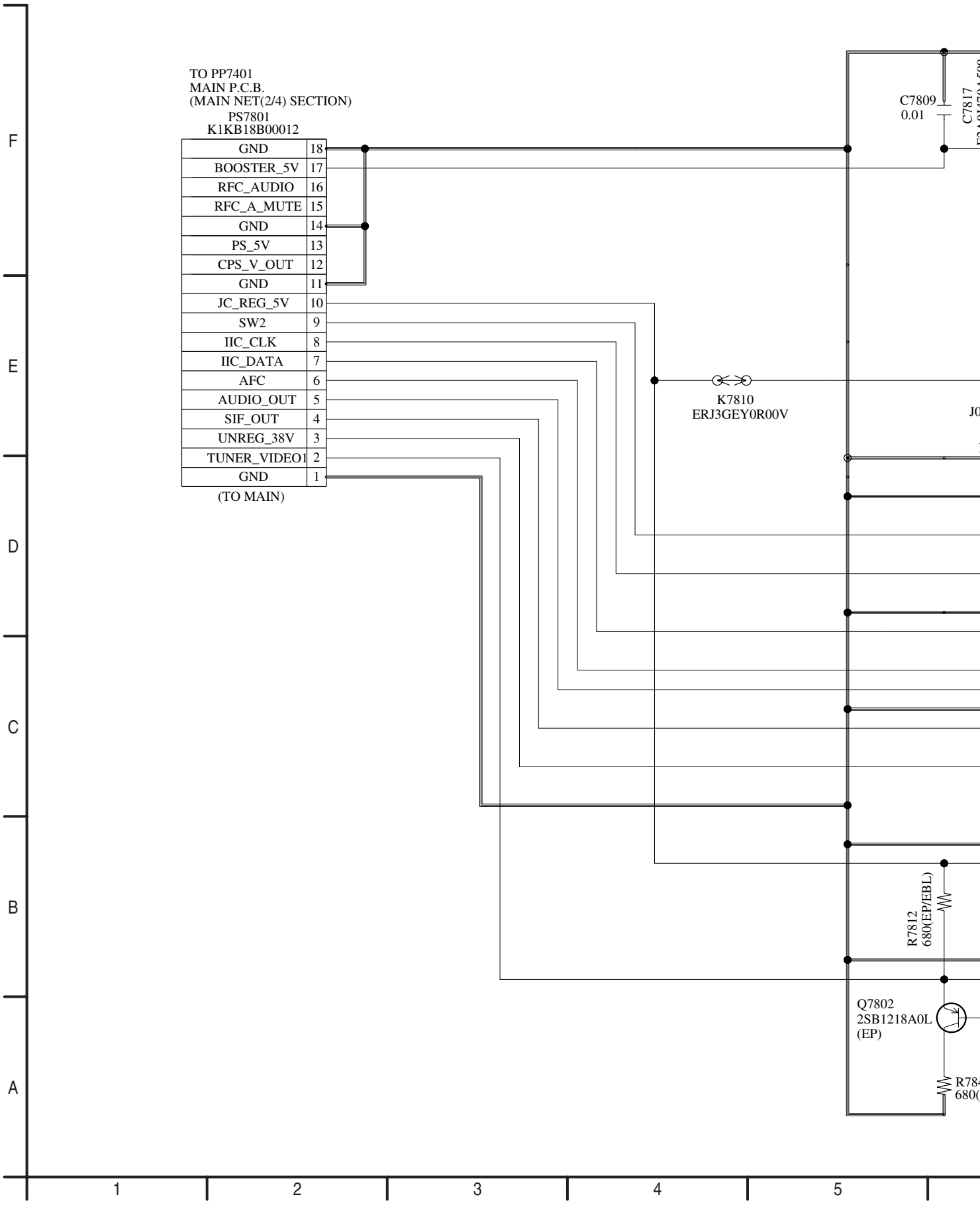
LOCATION MAP

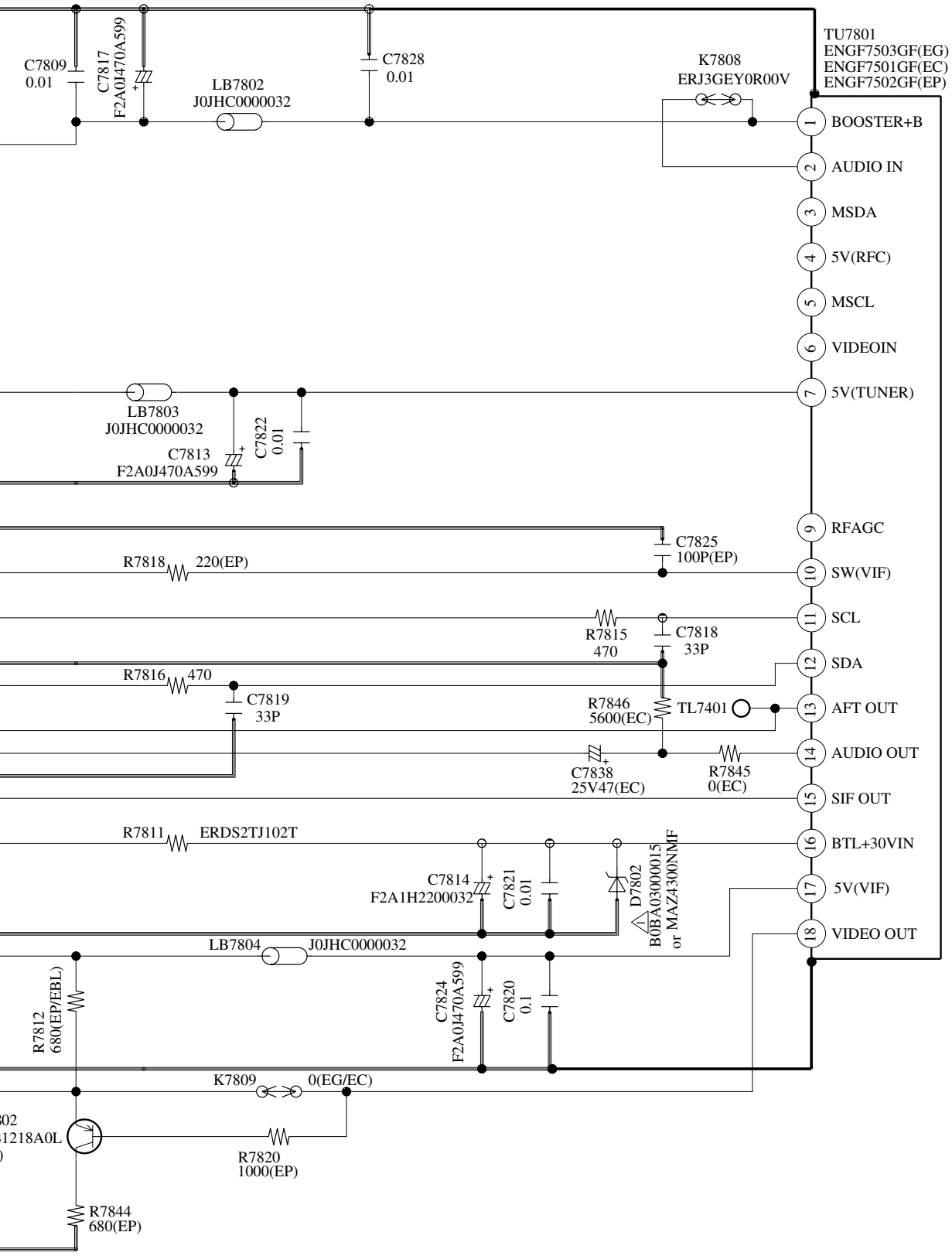
1/4	2/4
3/4	4/4

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
TIMER(4/4) Section
(Main P.C.B.(4/4))
Schematic Diagram(T)

13.16. Tuner Pack Schematic Diagram



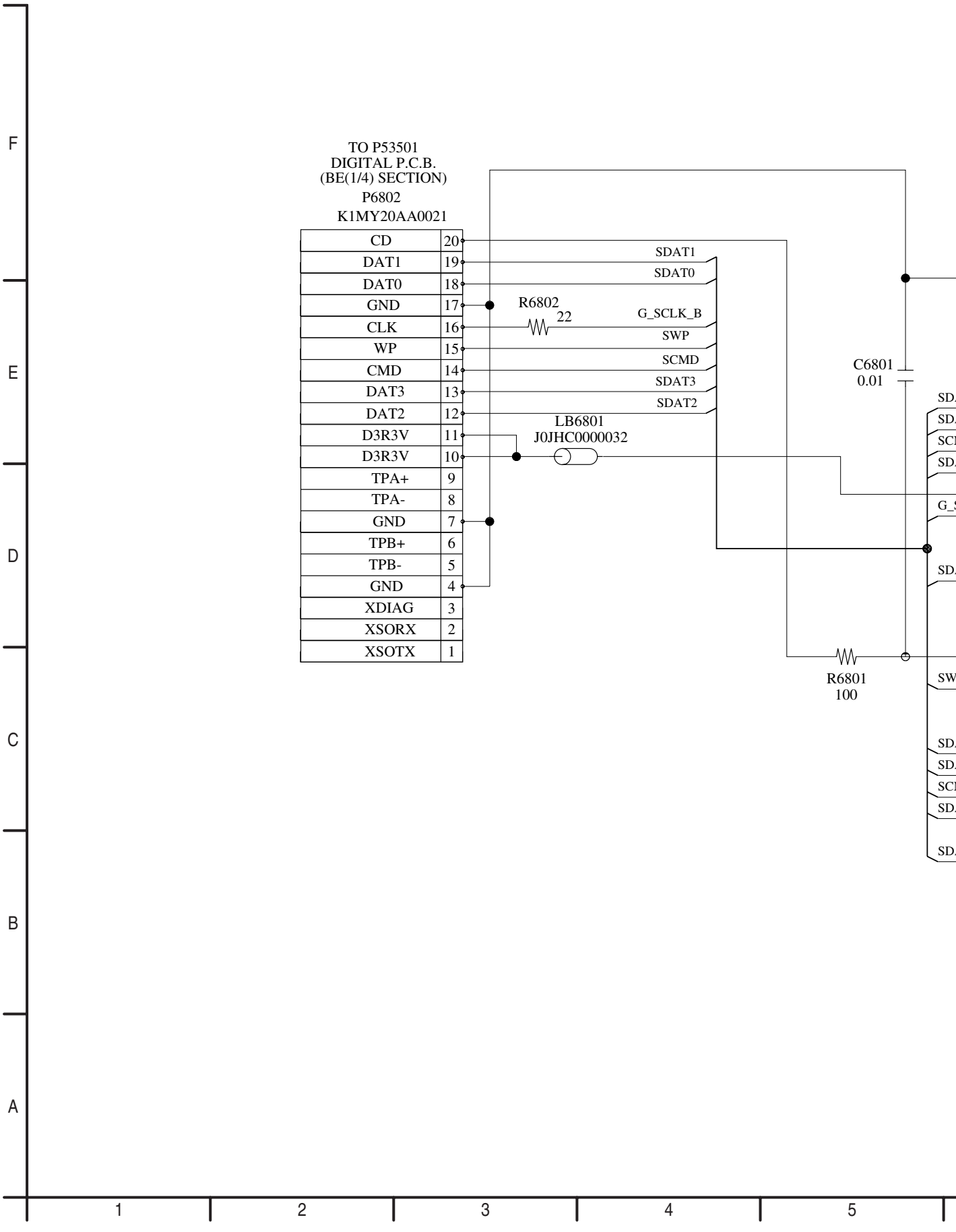


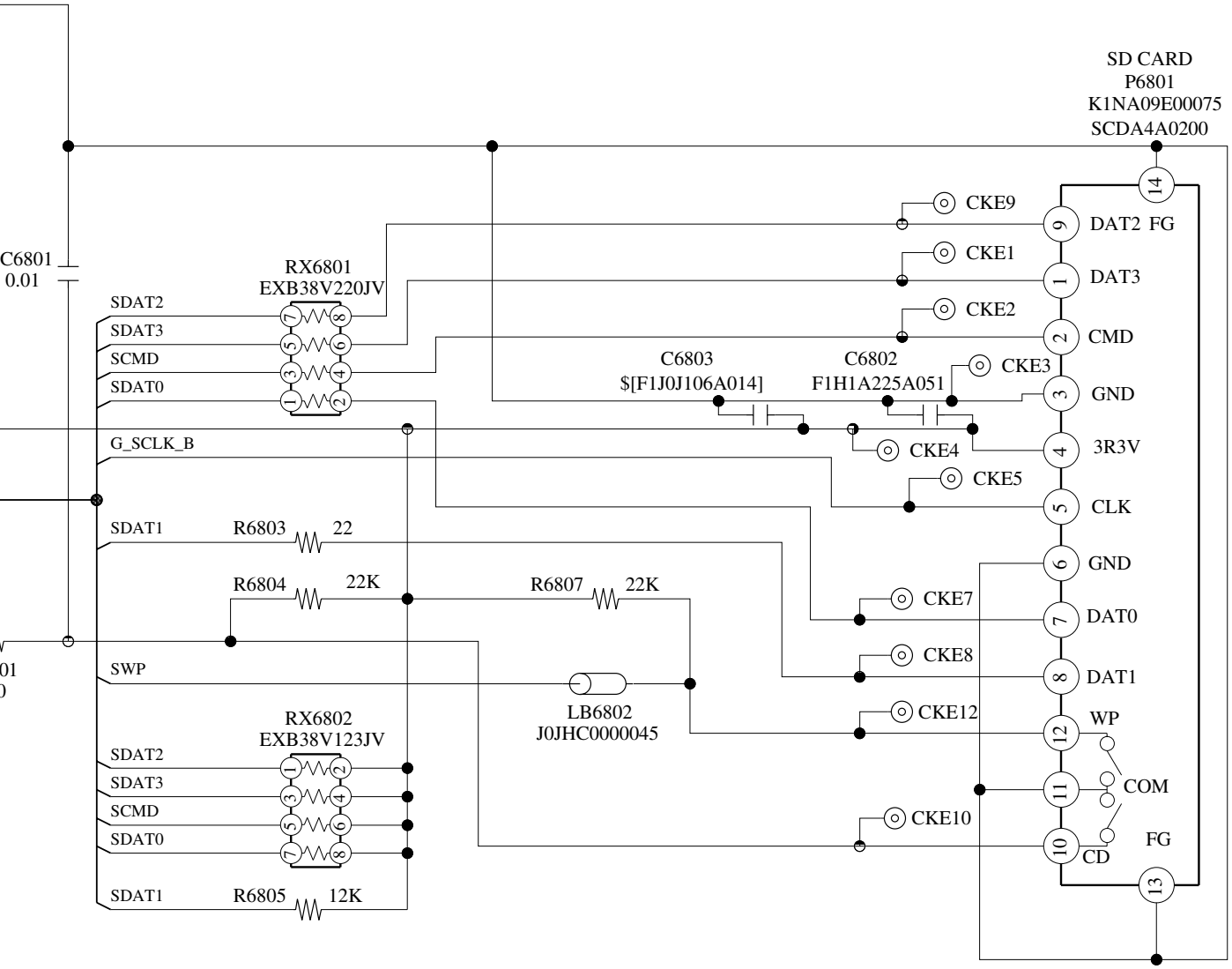
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
Tuner Pack Schematic Diagram

6 7 8 9 10

13.17. SD Card Schematic Diagram



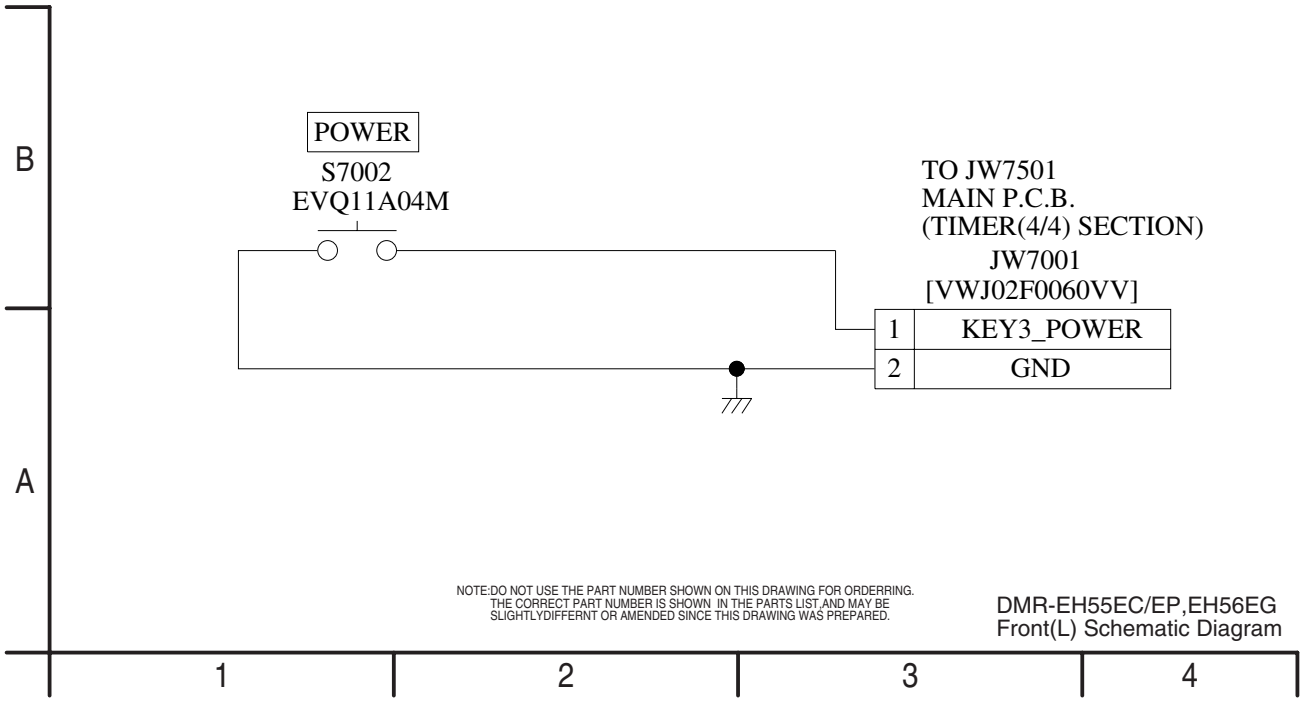


NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLY DIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

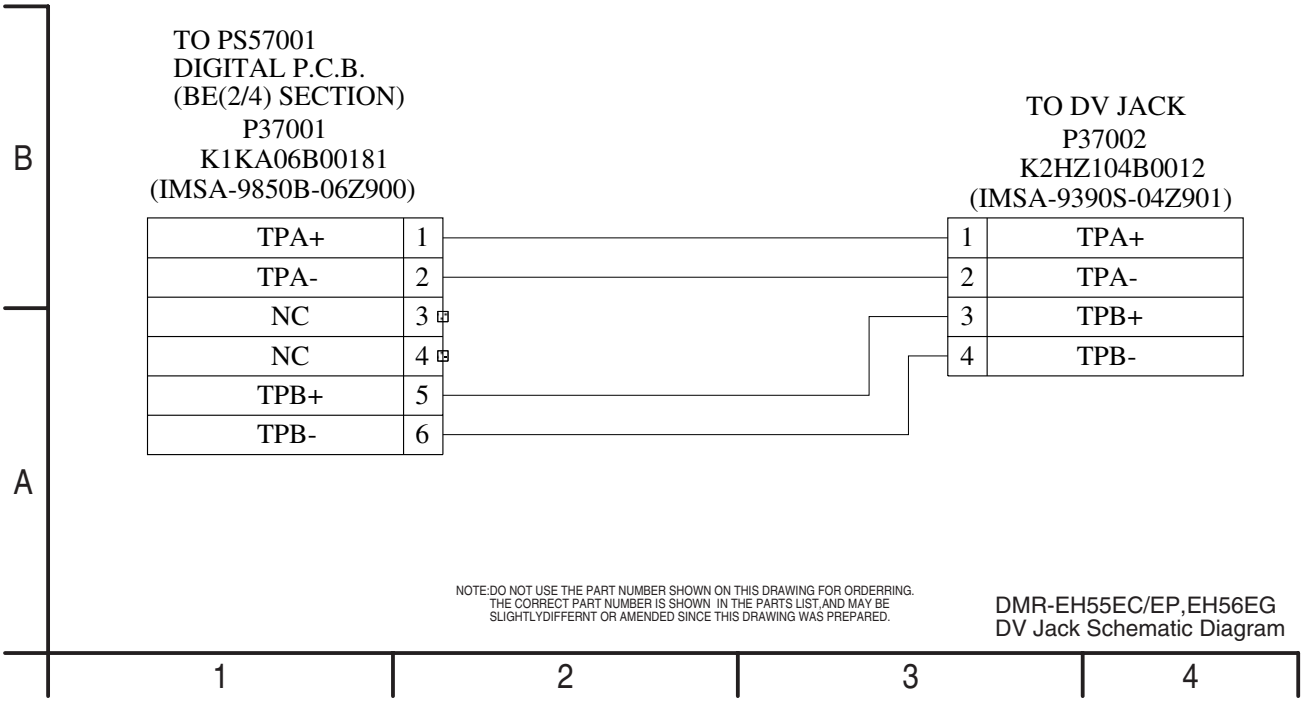
DMR-EH55EC/EP,EH56EG
SD Card Schematic Diagram

5 | 6 | 7 | 8 | 9 | 10

13.18. Front (L) Schematic Diagram



13.19. DV Jack Schematic Diagram



Ref No.	IC1505						IC1506													
MODE	1	2	3	4	5		1	2	3	4	5									
REC	4.1	0	4.9	-	3.3		4.8	6.1	0	5.2	5.2									
PLAY	4.1	0	4.9	-	3.3		4.8	6.1	0	5.2	5.2									
STOP	4.1	0	4.9	-	3.3		4.8	6.1	0	5.2	5.2									

Ref No.	IC1507								IC1510					IC1520				
MODE	1	2	3	4	5	6	7	8	1	2	3	4	5	1	2	3	4	5
REC	5.1	-	3.4	0	6.1	-	-	6.1	6.1	4.9	5.0	-	0	6.1	0	4.8	-	5.1
PLAY	5.1	-	3.4	0	6.1	-	-	6.1	6.1	4.9	5.0	-	0	6.1	0	4.8	-	5.1
STOP	5.1	-	3.4	0	6.1	-	-	6.1	6.1	4.9	5.0	-	0	6.1	0	4.8	-	5.1

Ref No.	IC1521								IC1522				
MODE	1	2	3	4	5	6	7	8	1	2	3	4	5
REC	3.3	-	2.0	0	4.8	-	-	4.1	-	0	0	5.0	5.1
PLAY	3.3	-	2.0	0	4.8	-	-	4.1	-	0	0	5.0	5.1
STOP	3.3	-	2.0	0	4.8	-	-	4.1	-	0	0	5.0	5.1

Ref No.	IC3001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.0	2.5	1.6	0	1.6	5.0	1.6	5.0	0.4	0.3	1.6	0.4	-	1.7	1.7	1.6	0.4	0	1.7	1.7
PLAY	2.0	2.5	1.6	0	1.6	5.0	1.6	5.0	0.4	0.3	1.6	0.4	-	1.7	1.7	1.6	0.4	0	1.7	1.7
STOP	2.0	2.5	1.6	0	1.6	5.0	1.6	5.0	0.4	1.6	1.6	0.4	-	1.7	1.7	1.6	0.4	0	1.7	1.7

Ref No.	IC3001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	0	1.7	1.7	1.7	5.0	1.4	0.1	1.4	0	2.1	1.6	0	1.6	0	2.1	-	1.6	-	1.6	5.0
PLAY	0	1.7	1.7	1.7	5.0	1.4	0.1	1.4	0	2.1	1.6	0	1.6	0	2.1	-	1.6	-	1.6	5.0
STOP	0	1.7	1.6	1.7	5.0	1.4	0.2	1.4	0	2.1	1.6	0	1.6	0	2.1	-	1.6	-	1.6	5.0

Ref No.	IC3001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	1.6	5.1	2.0	0	2.0	11.6	1.6	2.0	4.5	4.4	4.4	4.0	4.5	4.5	-	4.5	9.1	4.4	4.4	4.5
PLAY	1.6	5.1	2.0	0	2.0	11.6	1.6	2.0	4.5	4.4	4.4	4.0	4.5	4.5	-	4.5	9.1	4.4	4.4	4.5
STOP	1.6	5.1	2.0	0	2.0	11.6	1.6	2.0	4.5	4.5	4.0	4.5	4.5	4.4	-	3.9	9.1	4.0	4.3	3.7

Ref No.	IC3001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	4.5	4.5	-	4.5	9.0	0	0	0	0	0	4.5	4.5	4.5	4.5	0	-	9.5	4.5	4.5	0
PLAY	4.5	4.5	-	4.5	9.0	0	0	0	0	0	4.5	4.5	4.5	4.5	0	-	9.5	4.5	4.5	0
STOP	3.7	3.7	-	3.8	9.0	0	0	0	0	0	4.5	4.5	4.5	4.5	0	-	0.3	4.5	4.5	0

Ref No.	IC3001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
REC	2.1	5.0	1.5	5.1	2.1	4.5	3.6	4.8	4.6	5.0	2.0	2.8	2.1	5.1	2.0	0	2.1	0	2.0	2.5
PLAY	2.1	5.0	1.5	5.1	2.1	4.5	3.6	4.8	4.6	5.0	2.0	2.8	2.1	5.1	2.0	0	2.1	0	2.0	2.5
STOP	4.7	5.0	1.5	5.1	2.1	4.5	3.6	4.8	4.6	5.1	5.0	2.8	2.1	5.1	2.0	0	2.1	0	2.0	2.5

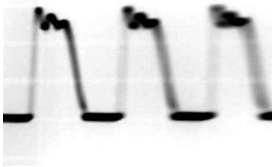
Ref No.	IC4009									IC4011										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5						
REC	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		3.4	0	4.8	6.1	5.0						
PLAY	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		3.4	0	4.8	6.1	5.0						
STOP	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		3.4	0	4.8	6.1	5.0						
Ref No.	IC4012									IC4901										
MODE	1	2	3	4	5	6	7	8		1	2	3								
REC	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		1.7	5.0	0								
PLAY	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		1.7	5.0	0								
STOP	5.8	5.8	5.8	0	5.8	5.8	5.8	11.6		1.7	5.0	0								
Ref No.	IC7301																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	2.4	2.4	2.4	0	0	2.4	0	2.4	0	2.4	0	-	0	2.9	2.6	0	0	2.8	0	0
PLAY	2.4	2.4	2.4	0	0	2.4	0	2.4	0	2.4	0	-	0	2.9	2.6	0	0	2.8	0	0
STOP	2.4	2.4	2.4	0	0	2.4	0	2.4	0	2.4	0	-	0	2.9	2.6	0	0	2.8	0	0
Ref No.	IC7301																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	2.3	0	-	1.5	2.4	1.4	0	5.0	5.0	5.0	2.9	2.4	2.4	2.5	2.5	0	-	2.4	-	-
PLAY	2.3	0	-	1.5	2.4	1.4	0	5.0	5.0	5.0	2.9	2.4	2.4	2.5	2.5	0	-	2.4	-	-
STOP	2.3	0	-	1.5	2.4	1.4	0	5.0	5.0	5.0	2.9	2.4	2.4	2.5	2.5	0	-	2.4	-	-
Ref No.	IC7301																			
MODE	41	42	43	44																
REC	2.4	-	-	0																
PLAY	2.4	-	-	0																
STOP	2.4	-	-	0																
Ref No.	IC7302				IC7401						IC7402									
MODE	1	2	3		1	2	3	4	5		1	2	3	4	5					
REC	5.0	0	4.9		12.4	4.2	11.6	2.6	0		6.1	0	6.1	-	5.1					
PLAY	5.0	0	4.9		12.4	4.2	11.6	2.6	0		6.1	0	6.1	-	5.1					
STOP	5.0	0	4.9		12.4	4.2	11.6	2.6	0		6.1	0	6.1	-	5.1					
Ref No.	IC7403									IC7404										
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8			
REC	5.0	-	3.4	0	4.2	-	-	6.1		0	0	0	0	3.2	3.2	0	3.3			
PLAY	5.0	-	3.4	0	4.2	-	-	6.1		0	0	0	0	3.2	3.2	0	3.3			
STOP	5.0	-	3.4	0	4.2	-	-	6.1		0	0	0	0	3.2	3.2	0	3.3			
Ref No.	IC7501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	0.3	-	4.9	3.8	0.8	0.8	4.4	0	0	2.1	1.2	4.9	1.4	0	2.1	3.3	4.9	3.3	3.2	-
PLAY	0.3	-	4.9	3.8	0.8	0.8	4.4	0	0	0.7	1.2	4.9	1.4	0	2.1	3.3	4.9	3.3	3.2	-
STOP	0.3	-	4.9	4.5	0.9	0.9	4.4	0	0	0.7	1.2	4.9	1.4	0	2.1	3.3	4.9	3.3	3.2	-
Ref No.	IC7501																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	3.1	-	3.2	0	-	-	-	-	4.8	4.6	3.3	3.3	0	-	3.3	3.2	3.3	-	0	4.9
PLAY	3.1	-	3.2	0	-	-	-	-	4.8	4.6	3.3	3.3	0	-	3.3	3.2	3.3	-	0	4.9
STOP	3.1	-	3.2	0	-	-	-	-	4.8	4.6	3.3	3.3	0	-	3.3	3.2	3.3	-	0	4.9
Ref No.	IC7501																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	0	4.9	4.9	4.8	0	4.9	5.0	5.0	4.9	0	4.9	-	0	-	-0.1	0	0	0	-	5.0
PLAY	0	4.9	4.9	4.8	0	4.9	5.0	5.0	4.9	0	4.9	-	0	-	-0.1	0	0	0	-	5.0
STOP	4.9	4.9	4.9	4.8	0	4.9	5.0	5.0	4.9	0	4.9	-	0	-	-0.1	0	0	0	-	5.0
Ref No.	IC7501																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	5.0	0	0	4.9	-	-	-	-	-	-	-	4.9	0	5.0	0	-	-	0	-
PLAY	0	5.0	0	0	4.9	-	-	-	-	-	-	-	4.9	0	5.0	0	-	-	0	-
STOP	0	5.0	0	0	4.9	-	-	-	-	-	-	-	4.9	0	5.0	0	-	-	0	-
Ref No.	IC7501																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
REC	3.3	0	0	4.7	3.2	5.0	5.0	5.0	2.0	5.0	0	0	2.5	1.2	1.6	0	0	2.0	5.0	0
PLAY	3.3	0	0	4.7	3.2	5.0	5.0	5.0	2.0	5.0	0	0	2.5	1.2	1.6	0	0	2.0	5.0	0
STOP	3.3	0	0	4.7	0	5.0	5.0	5.0	2.0	5.0	0	0	2.5	1.2	1.6	0	0	2.0	5.0	0
Ref No.	IC7502																			
MODE	1	2	3	4	5															
REC	0	0	-	4.9	5.0															
PLAY	0	0	-	4.9	5.0															
STOP	0	0	-	4.9	5.0															
Ref No.	IC7504																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	-	-	0	0	2.2	2.2	5.0	4.9	4.4	2.5	-18.1	-21.1	-21.1	-	-21.8	-21.1	-	-17.6	-17.6	-18.1
PLAY	-	-	0	0	2.2	2.2	5.0	4.9	4.4	2.5	-18.1	-17.6	-17.6	-	-21.8	-17.6	-	-21.1	-21.1	-18.1
STOP	-	-	0	0	2.2	2.2	5.0	4.9	4.4	0.8	-18.1	-21.1	-21.1	-	-21.8	-21.1	-	-17.6	-17.6	-18.1
Ref No.	IC7504																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	-17.6	-14.2	-18.1	-14.2	-21.0	-17.7	-21.0	-10.8	-17.7	-17.6	-17.6	-17.6	-17.7	-17.6	-17.7	-17.9	-17.9	-	-	-
PLAY	-17.6	-0.6	-18.1	-4.0	-14.3	-17.7	-10.8	-4.0	-17.7	-10.8	-21.1	-21.1	-17.7	-21.4	-17.7	-4.4	-4.4	-	-	-
STOP	-17.6	-14.2	-18.1	-14.2	-21.0	-17.7	-21.0	-10.8	-17.7	-17.6	-17.6	-17.6	-17.7	-17.6	-17.7	-17.9	-17.9	-	-	-
Ref No.	IC7505						IC7507													
MODE	1	2	3	4	5		1	2	3	4	5	6	7	8						
REC	4.9	5.1	0	-	-		5.7	1.3	1.3	0	0.2	0.3	11.2	12.3						
PLAY	4.9	5.1	0	-	-		5.7	1.3	1.3	0	0.2	0.3	11.2	12.3						
STOP	4.9	5.1	0	-	-		5.7	1.3	1.3	0	0.3	0.2	11.2	12.3						

Ref No.	Q1501									Q1509									
MODE	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8		
REC	5.2	5.2	5.2	0.6	5.1	5.1	5.1	5.1		12.4	12.4	12.4	6.2	12.3	12.3	12.3	12.3		
PLAY	5.2	5.2	5.2	0.6	5.1	5.1	5.1	5.1		12.4	12.4	12.4	6.2	12.3	12.3	12.3	12.3		
STOP	5.2	5.2	5.2	0.6	5.1	5.1	5.1	5.1		12.4	12.4	12.4	6.2	12.3	12.3	12.3	12.3		
Ref No.	Q4006				Q4007					Q4008				Q4009				Q7401	
MODE	E	C	B		E	C	B			E	C	B		E	C	B		E	C	B
REC	0	0	-0.1		0	0	-0.1			0	0	-0.1		0	0	-0.1		0	11.6	0
PLAY	0	0	-0.1		0	0	-0.1			0	0	-0.1		0	0	-0.1		0	11.6	0
STOP	0	0	-0.1		0	0	-0.1			0	0	-0.1		0	0	-0.1		0	11.6	0
Ref No.	Q7402				Q7501					Q7502				Q7503				Q7504	
MODE	E	C	B		E	C	B			E	C	B		E	C	B		E	C	B
REC	0	0	4.9		2.7	0	2.1			2.0	5.0	1.6		2.7	0	2.1		2.0	5.0	1.6
PLAY	0	0	4.9		2.7	0	2.1			2.0	5.0	1.6		2.7	0	2.1		2.0	5.0	1.6
STOP	0	0	4.9		2.7	0	2.1			2.0	5.0	1.6		2.7	0	2.1		2.0	5.0	1.6
Ref No.	Q7505				Q7506					Q7507				Q7508				Q7510	
MODE	E	C	B		E	C	B			E	C	B		E	C	B		E	C	B
REC	-18.1	5.0	-18.0		0	5.0	0			0	0	4.6		0	4.6	0		0	9.1	-0.2
PLAY	-18.1	5.0	-18.0		0	5.0	0			0	0	4.6		0	4.6	0		0	9.3	-0.1
STOP	-18.1	5.0	-18.0		0	5.0	0			0	0	5.1		0	5.1	0.1		0	9.1	-0.2
Ref No.	Q7511																		
MODE	E	C	B																
REC	5.1	12.3	5.5																
PLAY	5.1	12.3	5.5																
STOP	5.1	12.3	5.5																
Ref No.	QR1501				QR1503					QR4002				QR4003				QR4004	
MODE	E	C	B		E	C	B			E	C	B		E	C	B		E	C	B
REC	0	0	4.9		0	0	4.9			5.1	-0.1	5.1		0	0	2.3		0	5.1	0
PLAY	0	0	4.9		0	0	4.9			5.1	-0.1	5.1		0	0	2.3		0	5.1	0
STOP	0	0	4.9		0	0	4.9			5.1	-0.1	5.1		0	0	2.3		0	5.1	0
Ref No.	QR7401				QR7402					QR7403				QR7404					
MODE	E	C	B		E	C	B			E	C	B		E	C	B			
REC	0	4.2	0		38.1	38.0	0			0	0	4.9		0	0	0			
PLAY	0	4.2	0		38.1	38.0	0			0	0	4.9		0	0	0			
STOP	0	4.2	0		38.1	38.0	0			0	0	4.9		0	0	0			
Ref No.	QR7507				QR7508														
MODE	E	C	B		E	C	B												
REC	0	0	4.9		0	-0.2	0												
PLAY	0	0	4.9		0	-0.1	0												
STOP	0	0	4.9		0	-0.2	0												

Ref No.	P59001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
REC	0	0	0	0	0	0	0	0	0	0	0	0	3.3	12.3	4.9	12.3	3.3	0	4.9	0
PLAY	0	0	0	0	0	0	0	0	0	0	0	0	3.3	12.3	4.9	12.3	3.3	0	4.9	0
STOP	0	0	0	0	0	0	0	0	0	0	0	0	3.3	12.3	4.9	12.3	3.3	0	4.9	0
Ref No.	P59001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
REC	3.3	5.1	3.3	5.1	5.0	3.3	2.3	3.1	2.5	4.9	2.5	3.3	0	3.3	0	3.3	0	3.3	2.5	-
PLAY	3.3	5.1	3.3	5.1	5.0	3.3	2.3	3.1	2.5	4.9	2.5	3.3	0	3.3	0	3.3	0	3.3	2.5	-
STOP	3.3	5.1	3.3	5.1	5.0	3.3	2.3	3.2	2.5	4.9	2.5	3.3	0	3.3	0	3.3	0	3.3	2.5	-
Ref No.	P59001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
REC	2.5	3.2	0	1.7	0	0	0	3.3	0	3.3	1.1	-	0	0.3	1.5	3.3	0	-	1.0	4.8
PLAY	2.5	3.2	0	1.7	0	0	0	3.3	0	3.3	1.1	-	0	0.3	1.5	3.3	0	-	1.0	4.8
STOP	2.5	3.2	0	1.7	0	0	0	3.3	0	3.3	1.1	-	0	0.3	1.5	3.3	0	-	1.0	4.8
Ref No.	P59001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
REC	0	4.8	1.1	12.3	0	12.3	1.0	12.3	0	12.3	1.3	12.3	0	12.3	2.1	5.0	0	0	-	-
PLAY	0	4.8	1.1	12.3	0	12.3	1.0	12.3	0	12.3	1.3	12.3	0	12.3	2.1	5.0	0	0	-	-
STOP	0	4.8	1.1	12.3	0	12.3	1.0	12.3	0	12.3	1.3	12.3	0	12.3	2.1	5.0	0	0	-	-
Ref No.	P59001																			
MODE	81	82	83	84	85	86	87	88												
REC	0	0	0	.33	0	0	0	0												
PLAY	0	0	0	0.3	0	0	0	0												
STOP	0	0	0	0.3	0	0	0	0												

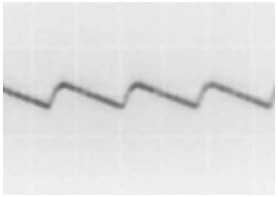
Ref No.	IC1150										IC1200									
MODE	1	2	3	4	5	6	7	8	9		1	2	3							
REC	3.0	1.5	0	11.6	0	-	310	-	-1523		8.3	2.5	0							
PLAY	3.0	1.5	0	11.6	0	-	310	-	-1523		8.3	2.5	0							
STOP	3.0	1.5	0	11.6	0	-	310	-	-1538		8.3	2.5	0							
Ref No.	IC1601										IC1701									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
REC	12.3	4.5	1.2	1.3	0.8	0	7.6	12.3			12.4	4.5	1.2	1.3	0	0	8.5	12.4		
PLAY	12.3	4.5	1.2	1.3	0.8	0	7.6	12.3			12.4	4.5	1.2	1.3	0	0	8.5	12.4		
STOP	12.3	4.5	1.2	1.3	0.8	0	7.6	12.3			12.4	4.5	1.2	1.3	1.2	0	8.5	12.4		
Ref No.	Q1200					Q1600									Q1706					
MODE	1	2	3	4		1	2	3	4	5	6	7	8		1	2	3	4	5	6
REC	9.3	8.3	0	1.5		12.3	12.3	12.3	7.6	6.1	6.1	6.1	6.1		4.1	4.1	8.5	12.4	4.1	4.1
PLAY	9.3	8.3	0	1.5		12.3	12.3	12.3	7.6	6.1	6.1	6.1	6.1		4.1	4.1	8.5	12.4	4.1	4.1
STOP	9.3	8.3	0	1.5		12.3	12.3	12.3	7.6	6.1	6.1	6.1	6.1		4.1	4.1	8.5	12.4	4.1	4.1
Ref No.	QR1800				QR1801															
MODE	E	C	B		E	C	B													
REC	11.9	0	12.3		0	4.5	0													
PLAY	11.9	0	12.3		0	4.5	0													
STOP	11.9	0	12.3		0	4.5	0													

Ref No.	Q7802																			
MODE	E	C	B																	
REC	3.8	1.2	3.1																	
PLAY	3.8	1.2	3.1																	
STOP	3.8	1.2	3.1																	

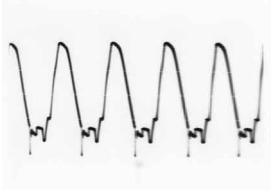


T1150-4,5 STOP
30Vp-p (5 μ sec.div)

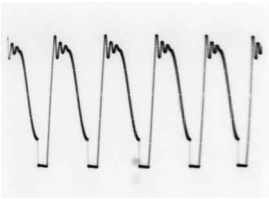
T1150-8 STOP
30Vp-p (5 μ sec.div)



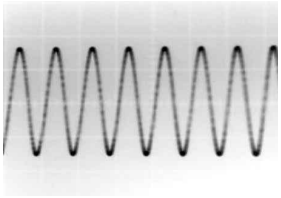
T1150-12 STOP
10Vp-p (2m sec.div)



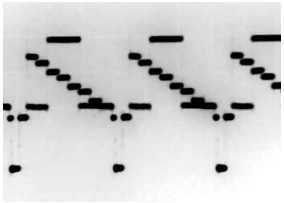
IC1150-1 STOP
10.0Vp-p (5 μ sec.div)



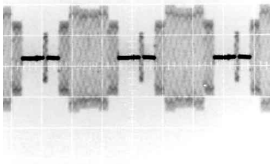
IC1150-9 STOP
580Vp-p (5 μ sec.div)



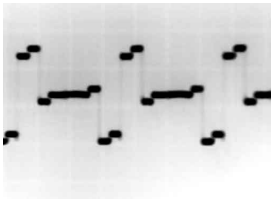
P7402-29,31 REC/PLAY
0.8Vp-p (1m sec.div)



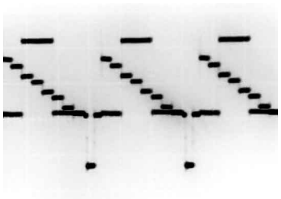
P7402-51 REC/PLAY
1.0Vp-p (20 μ sec.div)



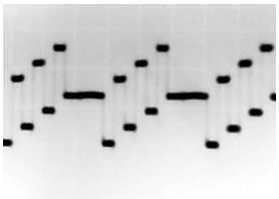
P7402-55 REC/PLAY
0.8Vp-p (20 μ sec.div)



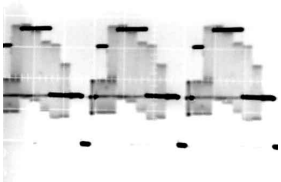
P7402-59 REC/PLAY
0.6Vp-p (20 μ sec.div)



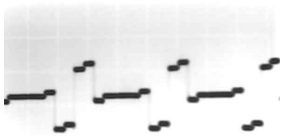
P7402-63 REC/PLAY
1.0Vp-p (20 μ sec.div)



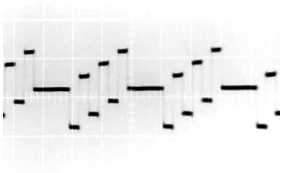
P7402-67 REC/PLAY
0.6Vp-p (20 μ sec.div)



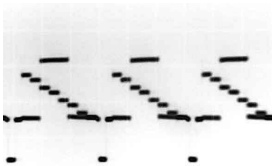
P7402-71 REC/PLAY
1.0Vp-p (20 μ sec.div)



JK3903-2 REC/PLAY
1.0Vp-p (20 μ sec.div)



JK3903-4 REC/PLAY
1.0Vp-p (20 μ sec.div)



JK3903-6 REC/PLAY
2.0Vp-p (20 μ sec.div)

:REC SIGNAL :PB SIGNAL

MAIN P.C.B.

FROM TIMER SECTION — XTMUTE IC7501- 65

FROM DIGITAL P.C.B. — XDMUTE IC54402- 16

QR4002-QR4004 MUTE CIRCUIT

D4005 Q4006 MUTE
Q4007 MUTE
D4006 Q4009 MUTE
Q4008 MUTE

JK3001 REAR JACK
MIX L OUT2 → 16 LINE OUT (L)
MIX R OUT2 → 19 LINE OUT (R)
21
AV4

IC4009 (BUFFER)

FROM DIGITAL P.C.B. (DIGITAL AUDIO BLOCK SECTION)
P59001 P7402 29 MIX R OUT DM
P59001 P7402 27 MIX L OUT DM

IC3001 (AUDIO SIGNAL PROCESSOR)
DAC Rch 56
DAC Lch 64

JK3901 21 PIN JACK
AV1 (TV)
AUDIO IN ch2(R) 2
AUDIO IN ch1(L) 6
AV2 (DECODER/EXT)
AUDIO IN ch2(R) 2
AUDIO IN ch1(L) 6
AV1 Rch 62
AV1 Lch 60
AV2 Rch 63
AV2 Lch 61

(SA1R) a b c d e → LPF → BUFF. → MUTE → AV1 Rch 72 → AUDIO OUT Ch2(R) → JK3901 21 PIN JACK 1 → AV1 (TV)
(SA3R) a b c d e → OUTPUT SELECT SWITCH (SA4R) a b c d → AGC → ADC Rch AMP → ADC Rch 79 → AUDIO OUT Ch1(L) → 3
(SA2R) a b c d e → LPF → BUFF. → MUTE → AV2 Rch 74 → AUDIO OUT Ch2(R) → JK3901 21 PIN JACK 1 → AV2 (DECEODER/EXT)
(SA2L) a b c d e → LPF → BUFF. → MUTE → AV2 Lch 73 → AUDIO OUT Ch1(L) → 3
(SA3L) a b c d e → OUTPUT SELECT SWITCH (SA4L) a b c d → AGC → ADC Lch AMP → ADC Lch 78 → AADC R → P7402 P59001 19
AADC L → P7402 P59001 17
TO DIGITAL P.C.B. (DIGITAL AUDIO BLOCK SECTION)
(SA1L) a b c d e → LPF → BUFF. → MUTE → AV1 Lch 71

(SA5R) AV4 TUN → BUFF.
(SA5L) AV4 TUN → BUFF.

JK3002 FRONT INPUT JACK
AV3 (FRONT) AUDIO
LINE (Rch) 13 12
LINE (Lch/MONO) 11 10 9
AV3 Rch 60
AV3 Lch 58

JK3001 REAR INPUT JACK
AV4 (REAR) AUDIO
LINE (Rch) 20 21
LINE (Lch) 17 18
AV4 Rch 61
AV4 Lch 59

TU7801 U/V TUNER
(EC)ONLY AUDIO OUT 14 → PS7801 PP7401 5
SIF OUT 15 → PS7801 PP7401 4

IC7301 (NICAM/A2)
MONO IN 38 R OUT 2
SIF 25 L OUT 1
TUN Rch 54
TUN Lch 52

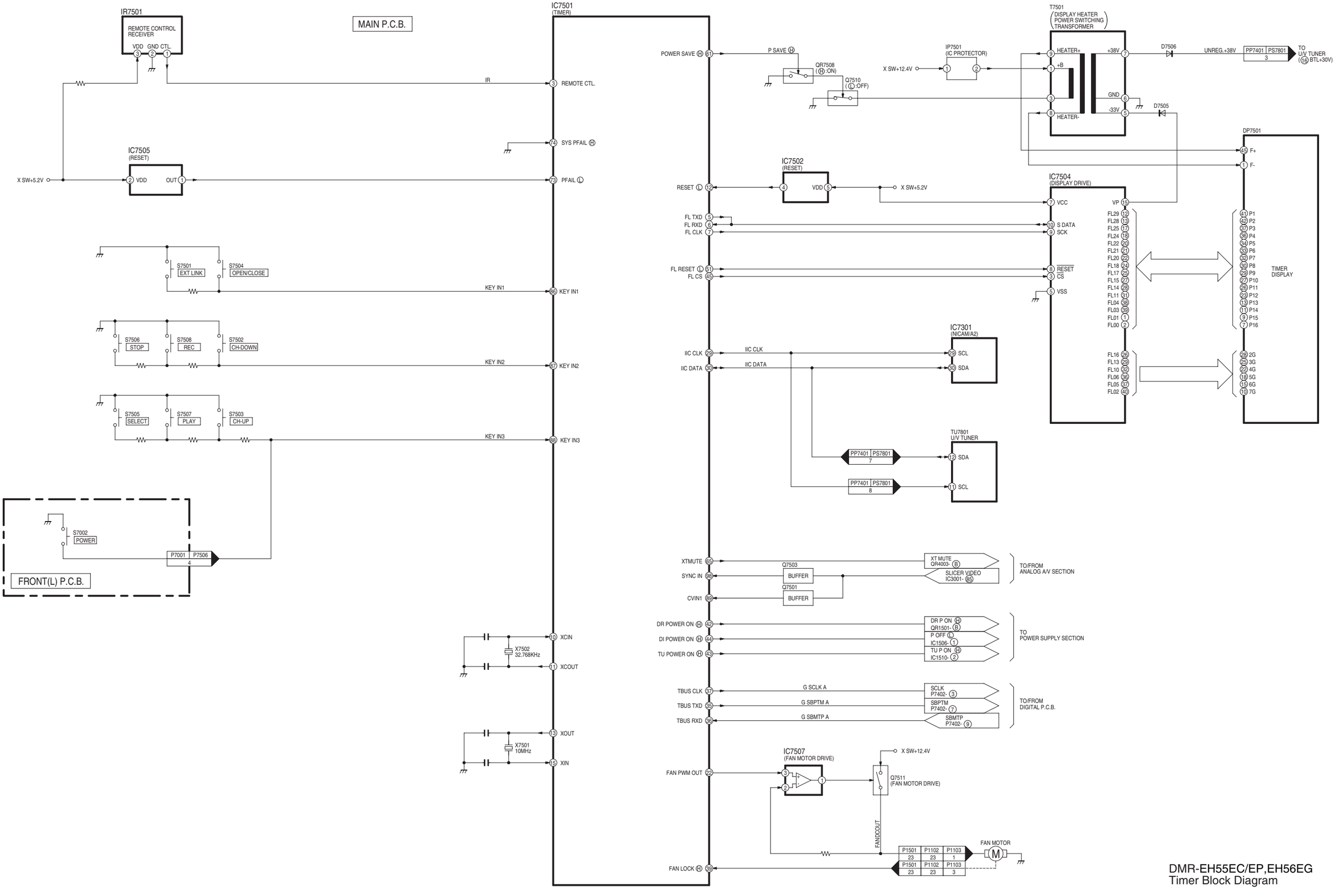
RF OUT 76 → MUTE → VCA → MIX

IIC BUS LOGIC
SCL 80 → IIC CLK IC7501- 29
SDA 80 → IIC DATA IC7501- 30
FROM TIMER SECTION
5V
2.3V
1.0V

TUNER P.C.B.

IC4901 OPTICAL (DIGITAL AUDIO OUT)
FROM DIGITAL P.C.B. P59001 P7402 32 IEC OUT → 1

DMR-EH55EC/EP,EH56EG
Analog Audio Block Diagram



DMR-EH55EC/EP,EH56EG
Timer Block Diagram

:REC SIGNAL :PB SIGNAL

MAIN P.C.B.

IC3001
(VIDEO PROCESSOR)

FROM DIGITAL P.C.B. (DIGITAL VIDEO BLOCK SECTION)

P59001 P7402 43 — C OUT DM — 91 — BIAS — 6MHz BPF
P59001 P7402 39 — Y OUT DM — 93 — CLAMP — 6MHz LPF
P59001 P7402 47 — RPROUT DM — 95 — CLAMP/BIAS
P59001 P7402 51 — GPYOUT DM — 97 — CLAMP
P59001 P7402 55 — BPBOUT DM — 99 — CLAMP/BIAS

AV1 (TV) — JK3901 21 PIN JACK 20 — AV1 VIDEO — 33 AV1 V — CLAMP

AV3 — JK3002 FRONT JACK
S-VIDEO IN: AV3 Y 3 — 41 AV3 Y — CLAMP; AV3 C 4 — 45 AV3 C — BIAS
VIDEO IN: AV3 V 8 — 37 AV3 V — CLAMP

AV4 — JK3001 REAR JACK
VIDEO IN: AV4 V 14 — 35 AV4 V — CLAMP

AV4 — JK3001 S-VIDEO
S-VIDEO IN: AV4 Y 3 — 39 AV4 Y — CLAMP; AV4 C 4 — 43 AV4 C — BIAS

AV2 (DECODER/EXT) — JK3901 21 PIN JACK
RED/C 15 — AV2 R/C — 1 AV2 R/C — BIAS/CLAMP (SW10)
GREEN 11 — AV2 G — 3 AV2 G — CLAMP
BLUE 7 — AV2 B — 5 AV2 B — CLAMP
VIDEO/Y 20 — AV2 V/Y — 31 AV2 V/Y — CLAMP

RGB CPSV

6MHz / 12MHz — (SW1) — (SW2) — COMP R-Y OUT 7 — JK3903 COMPONENT VIDEO OUT (PROGRESSIVE/INTERLACE): PR 2, PB 1, Y 4
(SW3) — AV1 R-C OUT 9
(SW4) — COMP B-Y OUT 11 — AV1 B OUT 12
(SW5) — (SW6) — COMP Y OUT 14 — AV1 G OUT 17 — JK3801 21PIN JACK AV1 (TV): RED/C 15, BLUE 7, GREEN 11, VIDEO/Y 19
(SW7) — AV4 Y OUT 19 — JK3001 S-VIDEO AV4: Y 9, C 10
(SW8) — AV4 C OUT 22
(SW9) — AV4 V OUT 23 — JK3001 VIDEO OUT AV4: 13, 15
SV1 — AV1 V/Y/C OUT 26
SV2 — AV2 V OUT 28 — JK3901 21PIN JACK AV2 (DECODER/EXT): VIDEO 19

ADC OUTPUT SELECT SWITCH CIRCUIT
AV1 V, AV3 Y, AV3 C, AV3 V, AV4 V, AV4 Y, AV4 C, AV2 R/C, AV2 V/Y, TUNER V

C-ADC OUT 81 — CPN CIN DM — P7402 P59001 63
V/Y ADC OUT 83 — V/Y IN DM — P7402 P59001 59
SLICER 85 — SLICER Q7501,Q7503- (B) — P7402 P59001 88 (R), 83 (G), 87 (B), 84 (RGB CPSV) — TO DIGITAL P.C.B. (DIGITAL VIDEO BLOCK SECTION)
IIC BUS LOGIC — SCL 88 — IIC CLK IC7501- 29; SDA 89 — IIC DATA IC7501- 30 — FROM/TO TIMER SECTION

TUNER V 30 — CLAMP — PP7401 PS7801 2 — (EP) Q7802 BUFFER — (Except (EP)) K7809 — TU7801 U/V TUNER VIDEO OUT 18 — TUNER P.C.B.

2.3V, 5V, 1.0V

DMR-EH55EC/EP,EH56EG
Analog Video Block Diagram

POWER P.C.B.

MAIN P.C.B.

AC INLET
P1101

F1101

VA1110,L1120
SURGE SUPPRESSOR AND SURGE ABSORBER

D1140,C1143
RECTIFIER

T1150
POWER SWITCHING TRANSFORMER
P1
P2
V2
V1
S2B
S2A
S1A
S1B

D1270

IC1150
(SWITCHING IC)
VIN
F/B
Z/C
GND
VCC

Q1200
(FEED BACK)

IC1200
(ERROR VOLTAGE DET.)

HOT

COLD

Q1700
(REG.X SW+3.8V)

IC1701
(DC/DC CONVERTER)
Vin
Current Sense
FET Gate Drive
PW ON
GND

X SW+3.8V

P1102 P1501
16,17,19

X SW+3.8V → A

X SW+5.8V

P1102 P1501
3,4,5,6

→ B

Q1600
(REG.X SW+5.8V)

IC1601
(DC/DC CONVERTER)

IP1601

QR1800,QR1801
SWITCHING

RESET +5.2V ← IC7505- 1

IC1505
(REG.X SW+3.3V)
CONT
VOUT
VIN
GND

X SW+3.3V → IC7501- 16

IC1521
(REG.ANA+3.3V)
VIN
VOUT
GND
CONT

ANA+3.3V → C

FROM TIMER SECTION
DI P ON H
IC7501- 44

→ D

X SW+12V

P1102 P1501
12,13,14,15

→ E

T7501
(DISPLAY HEATER POWER SWITCHING TRANSFORMER)

IP1501

IP7501

D7506

UNREG +38V → F

IC7507- 8

IC7401
(REG.PS+11.6V)
VIN
E VOUT
H:ON GND

PS+11.6V → IC3001- 46 ,IC4009- 8 ,IC4012- 8

PWR SAVE H:ON
IC7501- 79
FROM TIMER SECTION

QR7401
(H:ON)

→ G

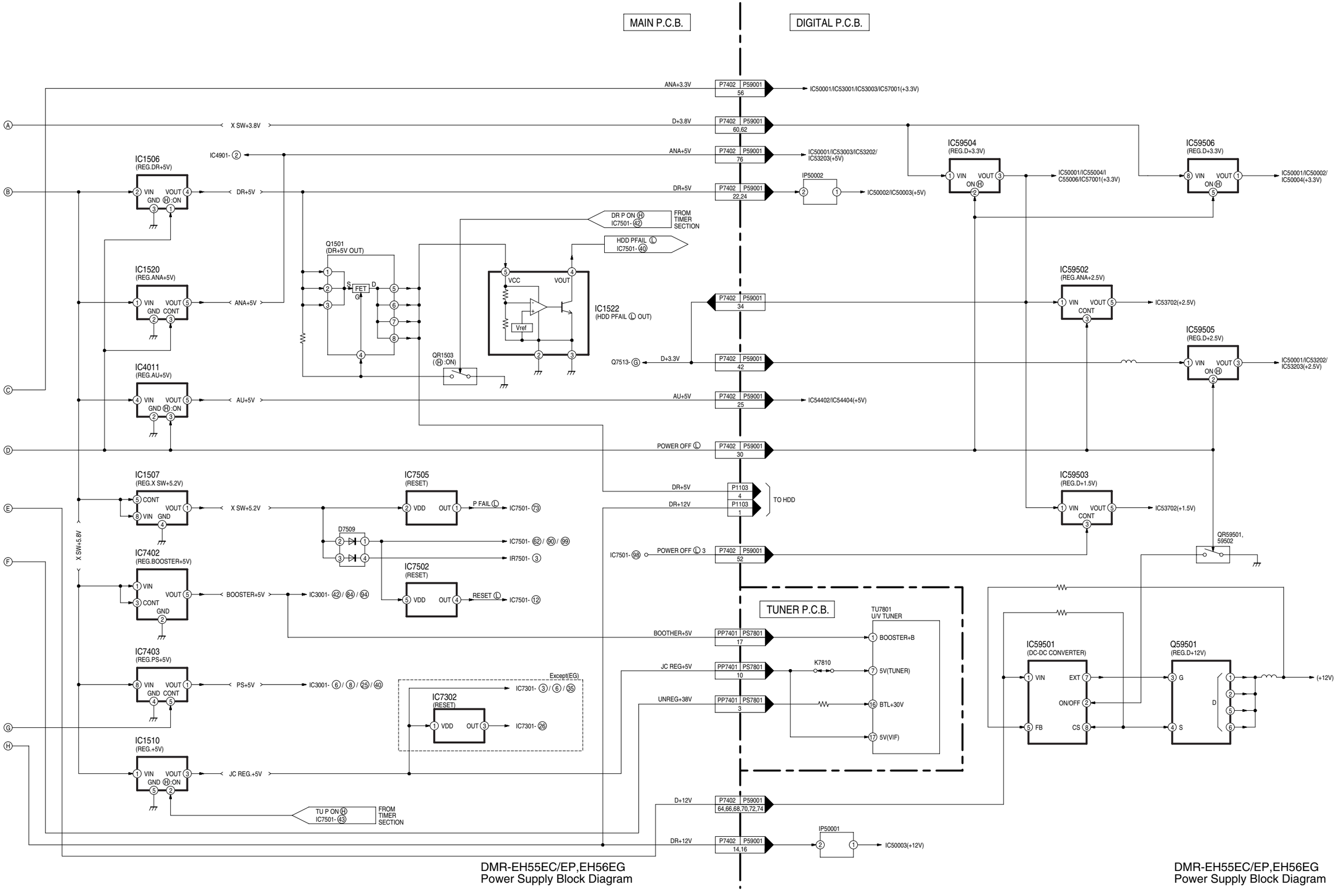
Q1509
(DR+12V OUT)

DR+12V → H

DR P ON H
IC7501- 42
FROM TIMER SECTION

QR1501
(H:ON)

DMR-EH55EC/EP,EH56EG
Power Supply Block Diagram



DMR-EH55EC/EP,EH56EG
Power Supply Block Diagram

DMR-EH55EC/EP,EH56EG
Power Supply Block Diagram

Main P.C.B.

Integrated Circuit

IC1505	D-5
IC1506	C-3
IC1507	B-3
IC1510	F-6
IC1520	B-4
IC1521	B-4
IC1522	F-2
IC3001	D-6
IC4009	B-7
IC4011	D-4
IC4012	B-6
IC4901	A-8
IC7301	F-5
IC7302	F-4
IC7401	B-6
IC7402	F-7
IC7403	F-8
IC7404	B-3
IC7501	E-3
IC7502	E-3
IC7504	D-2
IC7505	F-4
IC7507	A-7

Transistor

Q1501	C-2
Q1509	B-5
Q4006	C-8
Q4007	C-7
Q4008	B-7
Q4009	C-7
Q7401	F-8
Q7402	F-7
Q7501	D-3
Q7502	D-3
Q7503	D-3
Q7504	D-3
Q7505	E-2
Q7506	E-4
Q7507	E-4
Q7508	E-5
Q7510	F-3
Q7511	A-7

Transistor-resistor

QR1501	B-5
QR1503	C-2
QR4002	C-5
QR4003	D-5
QR4004	D-5
QR7401	E-4
QR7402	F-7
QR7403	F-7
QR7404	F-7
QR7507	F-4
QR7508	F-3

Test Point

CL4001	E-6
CL7501	E-3
CL7502	E-3
CL7503	E-3
CL7504	E-4
CL7505	E-4
CL7506	E-4
CL7507	E-4

CL7508	E-4
TL3001	D-6
TL7401	B-3
TL7402	F-7
TL7501	E-3
TL7502	E-2
TL7503	E-4
TL7505	D-3
TL7509	E-4
TL7510	E-4
TL7511	D-3
TL7512	E-4
TL7513	E-2
TL7514	C-2
TL7515	E-3
TW7501	F-4

Connector

JK3001	B-8
JK3002	B-2
JK3901	D-8
JK3903	E-8
P1501	B-6
P1503	F-2
P7402	C-4
PP7401	F-7

Diode

D3901	E-8
D4001	D-5
D4005	B-8
D4006	B-7
D7403	F-8
D7501	F-3
D7502	E-4
D7504	F-3
D7505	F-3
D7506	F-3
D7507	F-2
D7508	F-2
D7509	F-4
D7510	F-3

Crystal Osillator

X7301	F-5
X7501	E-3
X7502	E-3

IC Protector

IP1501	B-6
IP7501	E-3
IR7501	F-2

Coil

L1504	B-5
L1505	C-2
L4901	B-7
L7302	E-5
L7303	F-5
L7304	F-5
L7401	C-4
L7402	C-3
L7501	E-3
L7502	D-2
LB1502	B-6
LB1503	B-6
LB1504	B-6
LB1506	B-6
LB3001	E-7

LB3002	F-7
LB3003	E-6
LB3005	C-8
LB3006	C-8
LB3007	C-8
LB3008	C-8
LB3009	B-2
LB3010	B-2
LB3011	B-2
LB3012	B-2
LB3013	C-2
LB3907	D-8
LB3908	D-8
LB3911	D-8
LB3912	D-7
LB3913	D-7
LB7301	F-5
LB7302	E-4
LB7303	F-5
LB7304	E-5
LB7401	F-7
LB7402	C-4
LB7403	C-4
LB7404	C-3
LB7405	C-4
LB7406	C-3
LB7407	C-3
LB7408	C-3
LB7409	C-4
LB7410	C-4
LB7411	C-4
LB7412	B-4
LB7413	C-3
LB7414	C-3
LB7415	C-4
LB7416	C-3
LB7417	C-4
LB7418	C-4
LB7419	C-4
LB7420	B-4
LB7501	D-3
LB7502	D-2
LB7507	E-3
LB7508	D-3
LB7509	E-3
LB7510	E-4
LB7515	F-3
LB7516	F-3
LB7517	F-2
LB7518	F-3
LB7519	F-3

Capacitor

C1503	B-6
C1504	B-6
C1508	B-4
C1509	C-4
C1510	B-4
C1511	B-4
C1512	B-4
C1515	B-6
C1516	D-3
C1518	B-6
C1519	F-2
C1520	D-5

C1521	E-2
C1522	D-5
C1523	C-3
C1524	C-3
C1525	D-3
C1526	C-2
C1527	C-2
C1528	B-5
C1529	C-2
C1535	F-6
C1536	F-6
C1538	B-3
C1539	B-3
C1540	B-3
C1541	B-5
C1548	E-2
C1549	E-3
C3001	D-6
C3002	D-6
C3003	D-6
C3004	D-6
C3005	D-6
C3006	D-7
C3007	D-7
C3008	D-7
C3009	D-7
C3010	D-7
C3011	D-7
C3012	D-7
C3013	D-7
C3014	D-7
C3015	E-7
C3016	E-7
C3017	E-7
C3018	E-7
C3019	E-7
C3020	E-7
C3021	E-7
C3022	E-7
C3024	D-6
C3025	D-6
C3026	D-6
C3027	D-6
C3028	D-6
C3029	D-6
C3031	D-6
C3032	D-7
C3033	D-6
C3034	D-6
C3035	F-7
C3038	E-7
C3039	E-6
C3041	D-6
C3057	C-8
C3058	C-8
C3059	C-8
C3060	C-8
C3064	B-8
C3070	C-2
C3071	C-2
C3072	B-2
C3910	C-7
C3911	C-7
C3914	E-6

C3915	E-6
C3916	C-7
C3917	C-8
C3918	E-6
C3919	E-6
C3928	C-7
C3929	C-7
C3935	E-6
C3953	D-8
C3954	D-8
C3955	D-8
C3956	D-8
C3957	D-7
C3958	C-8
C3961	D-7
C3962	D-7
C4003	D-7
C4005	E-6
C4006	F-6
C4008	E-6
C4019	D-6
C4021	D-6
C4023	E-6
C4024	E-6
C4025	E-6
C4027	E-6
C4028	F-6
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C4034	C-6
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C4057	C-7
C4059	D-4
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C4062	B-6
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C4064	C-7
C4065	B-6
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C4070	C-6
C4072	B-6
C4082	B-8
C4083	C-8
C4092	B-6
C4901	B-7
C4902	B-7
C4903	B-7
C4904	A-8
C7301	F-5
C7303	E-5
C7304	E-5
C7305	F-5
C7306	F-5
C7307	F-4
C7308	F-4
C7309	E-5
C7310	E-5
C7311	E-5
C7312	E-5
C7313	E-5
C7314	E-5
C7315	E-4
C7316	E-4

C7317	E-5
C7318	E-5
C7323	E-5
C7324	E-5
C7325	E-5
C7326	F-5
C7327	F-5
C7328	F-5
C7329	F-5
C7330	F-5
C7331	F-5
C7332	F-5
C7333	F-5
C7334	F-5
C7335	F-5
C7336	F-4
C7337	F-4
C7338	F-5
C7339	F-5
C7340	E-5
C7401	C-6
C7402	F-8
C7404	F-8
C7406	F-8
C7407	F-7
C7412	F-7
C7413	F-7
C7414	C-3
C7415	C-3
C7417	B-3
C7418	B-3
C7419	C-3
C7439	B-5
C7501	D-3
C7502	D-3
C7503	D-3
C7504	D-3
C7505	D-3
C7507	D-3
C7509	D-2
C7510	D-2
C7511	D-2
C7512	D-2
C7513	D-2
C7514	E-4
C7516	E-3
C7517	E-3
C7518	E-3
C7519	E-3
C7520	E-3
C7522	E-3
C7523	E-3
C7524	E-3
C7528	E-3
C7531	D-4
C7532	D-3
C7534	E-3
C7541	E-3
C7542	E-3
C7543	E-3
C7544	E-3
C7546	E-3
C7547	E-4
C7551	E-4

C7552	E-4
C7553	E-5
C7554	F-4
C7555	F-4
C7556	F-3
C7557	F-3
C7558	F-3
C7565	E-3
C7569	F-3
C7570	F-3
C7571	F-3
C7572	F-2
C7573	F-3
C7577	F-4
C7578	F-4
C7579	F-4
C7584	F-4
C7587	B-7
C7588	A-7
C7590	A-7
C7592	F-2
C7593	F-3

Resistor

R1502	F-2
R1505	C-2
R1506	C-2
R1507	C-2
R1509	D-3
R1510	D-3
R1511	D-3
R1518	B-5
R1519	B-5
R3001	E-7
R3003	F-6
R3004	E-6
R3006	D-6
R3007	D-6
R3008	E-6
R3009	D-6
R3054	B-8
R3055	B-8
R3056	B-8
R3057	B-8
R3058	B-8
R3059	B-8
R3060	B-2
R3061	B-2
R3062	B-2
R3901	F-8
R3902	E-8
R3903	E-8
R3912	C-7
R3913	C-7
R3914	C-7
R3918	C-7
R3919	D-7
R3920	D-7
R3921	D-7
R3922	D-8
R3923	C-8
R3924	E-8
R3925	D-8
R3926	D-8
R3927	D-8

R3928	E-8
R3929	D-8
R3930	D-8
R3932	E-8
R3934	E-7
R3935	D-8
R3975	D-6
R3976	D-6
R3983	C-8
R3984	D-8
R3987	D-8
R3988	D-8
R3989	D-8
R3990	D-8
R3991	D-7
R3992	D-8
R3993	D-7
R3994	D-8
R4003	C-4
R4004	C-5
R4005	C-4
R4006	E-6
R4007	E-6
R4008	E-6
R4010	E-6
R4011	E-6
R4013	F-6
R4046	B-6
R4047	C-6
R4055	B-7
R4057	C-7
R4066	B-6
R4067	B-6
R4071	B-8
R4074	C-8
R4076	B-8
R4077	B-7
R4078	B-8
R4079	B-7
R4080	C-8
R4081	C-8
R4088	B-7
R4089	B-7
R4090	C-8
R4093	C-8
R4094	E-6
R7304	F-5
R7305	F-5
R7306	F-5
R7307	F-5
R7308	F-4
R7311	E-5
R7312	E-5
R7313	E-5
R7314	E-5
R7315	E-5
R7317	E-5
R7318	E-5
R7319	E-5
R7320	E-5
R7321	F-5
R7322	F-5
R7323	F-5
R7324	F-4

R7325	F-4
R7326	F-5
R7401	F-6
R7402	B-5
R7403	F-7
R7404	F-7
R7405	F-8
R7406	F-8
R7407	F-7
R7408	F-7
R7409	B-4
R7410	C-4
R7411	B-3
R7412	B-3
R7414	B-3
R7444	B-6
R7445	B-6
R7446	B-6
R7448	C-4
R7501	D-3
R7502	D-3
R7503	D-3
R7504	D-3
R7505	D-3
R7506	D-3
R7507	D-3
R7508	D-3
R7516	D-3
R7517	E-4
R7519	D-4
R7520	E-4
R7521	E-2
R7522	E-2
R7523	E-2
R7527	E-3
R7528	E-2
R7529	E-2
R7530	E-4
R7531	E-3
R7532	E-3
R7533	E-3
R7534	D-3
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R7536	D-3
R7537	D-3
R7543	D-3
R7544	D-3
R7548	D-4
R7549	D-3
R7558	E-3
R7559	E-3
R7561	D-4
R7562	E-4
R7564	D-4
R7565	E-4
R7566	E-4
R7567	E-4
R7568	D-4
R7570	E-4
R7571	E-4
R7572	E-4
R7574	D-4

R7575	E-4
R7576	D-5
R7577	D-5
R7579	D-5
R7582	E-4
R7583	E-4
R7584	E-4
R7585	E-4
R7586	E-4
R7587	E-4
R7588	E-4
R7589	E-4
R7590	E-5
R7597	F-3
R7598	F-3
R7599	F-3
R7600	E-5
R7601	E-4
R7606	E-4
R7607	F-3
R7608	F-4
R7612	F-3
R7614	F-3
R7615	E-3
R7616	F-3
R7617	F-3
R7618	F-2
R7619	F-4
R7621	F-4
R7623	F-4
R7624	A-7
R7625	A-7
R7626	A-7
R7627	A-7
R7639	D-2
R7640	E-2
R7641	C-2
R7642	D-2
R7643	D-2
R7644	E-2
R7648	F-2
R7651	D-5
R7653	E-4
R7655	E-4

Switch

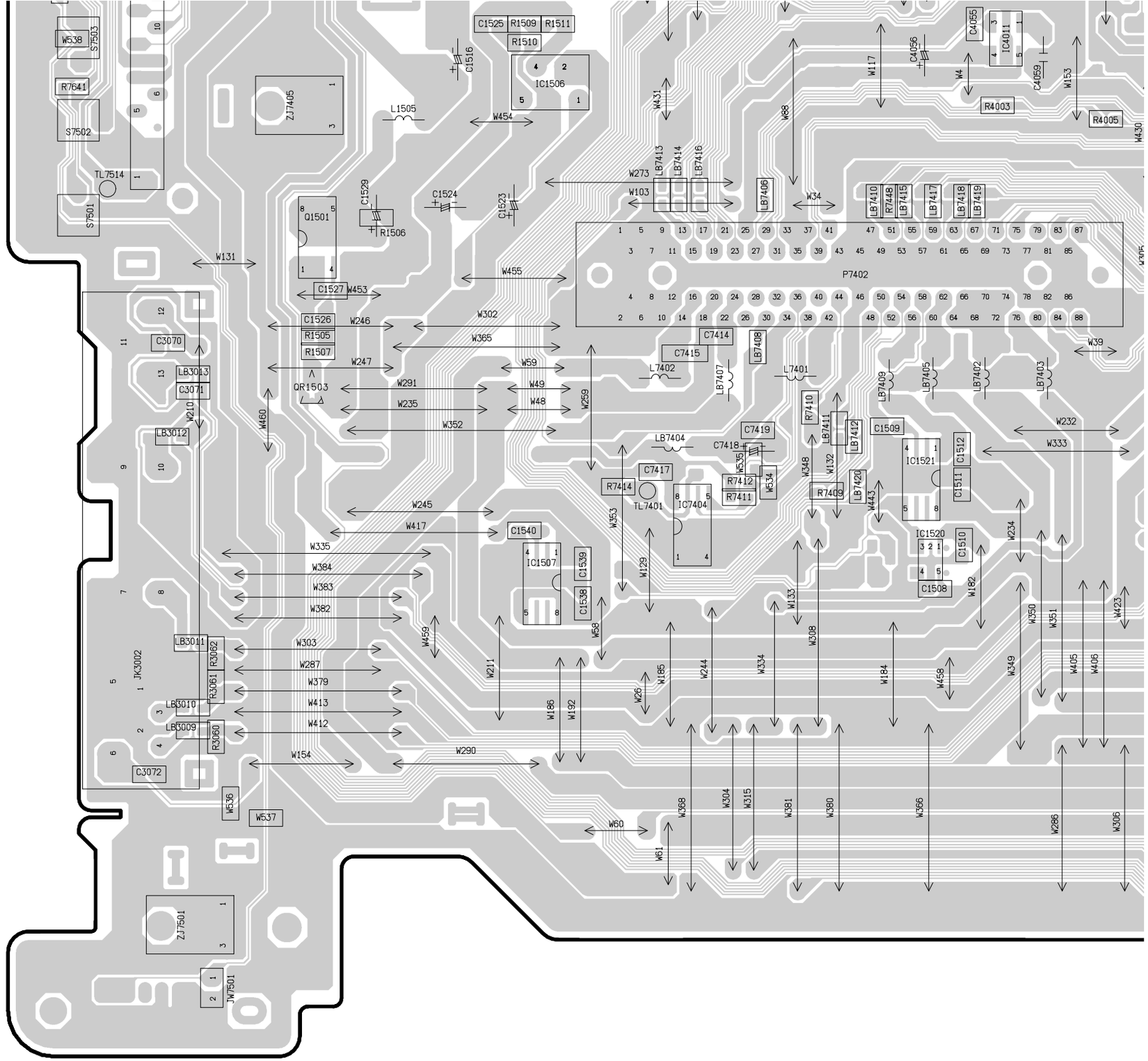
S7501	C-2
S7502	C-2
S7503	D-2
S7504	D-2
S7505	E-2
S7506	E-2
S7507	E-2
S7508	F-2

Transformer

T7501	F-3

Display

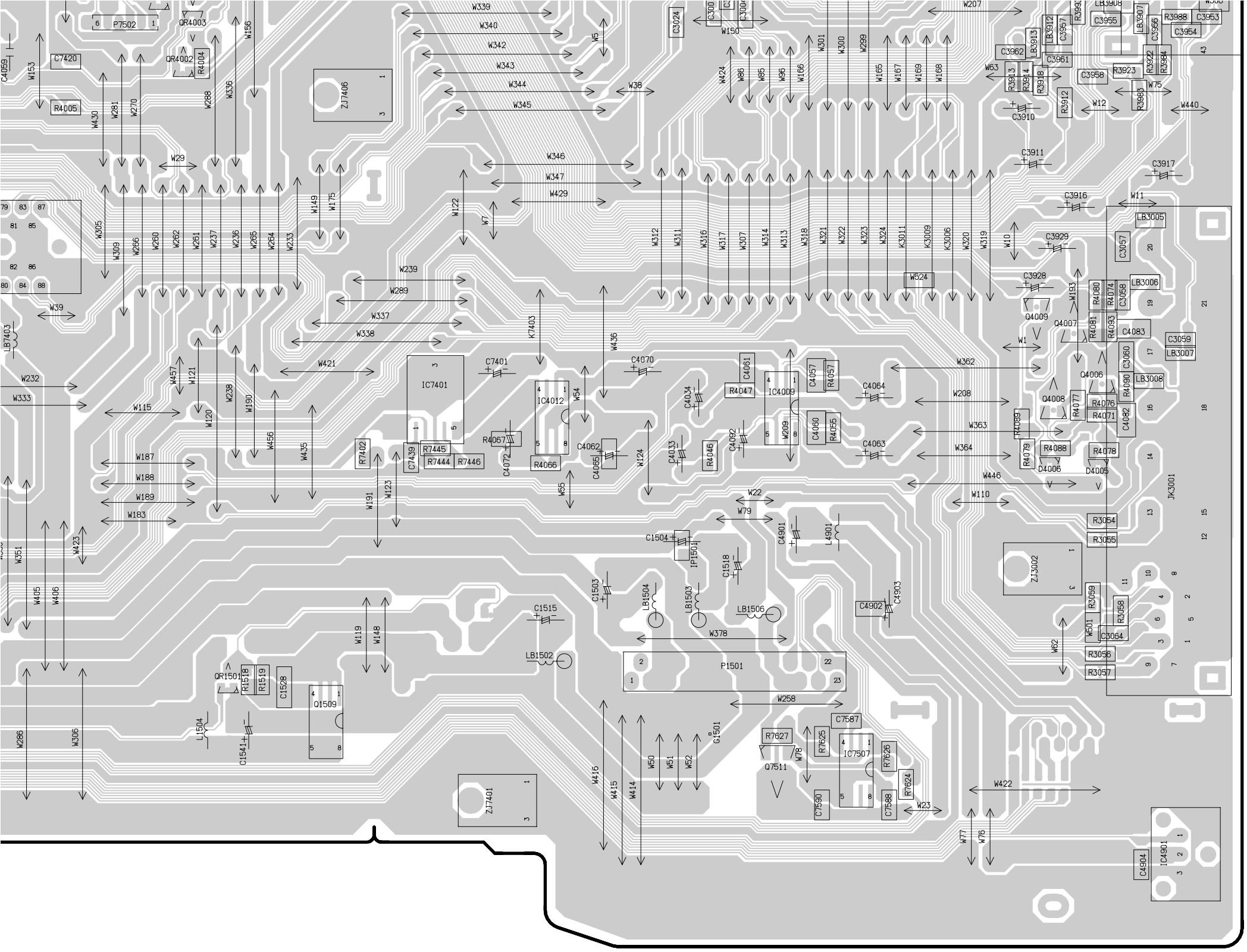
DP7501	D-2



Location Map

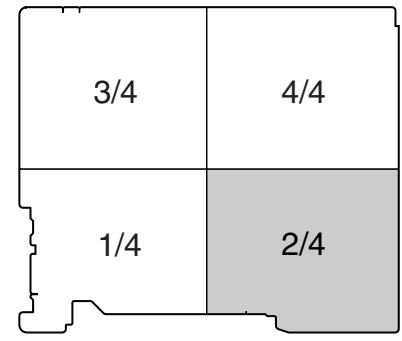
(REAR) (FRONT)

DMR-EH55EC/EP,EH56EG
Main P.C.B.
(RFKB79119HT:EH55EC,
RFKB79119JT:EH55EP,
RFKB79119GT: EH56EG)
(1/4 Section)



Location Map

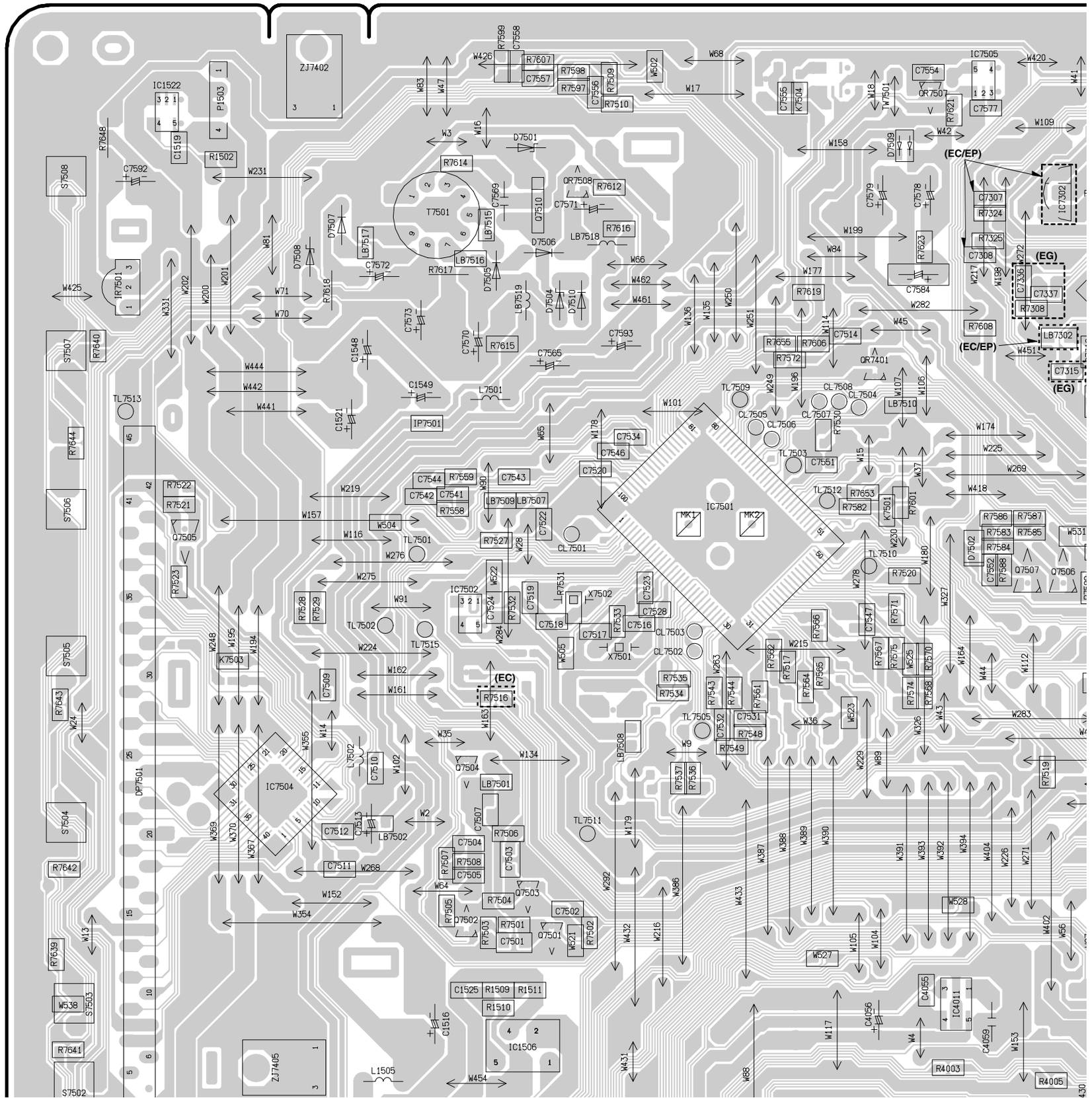
(REAR) (FRONT)



DMR-EH55EC/EP,EH56EG
Main P.C.B.
(RFKB79119HT:EH55EC,
RFKB79119JT:EH55EP,
RFKB79119GT: EH56EG)
(2/4 Section)

5 6 7 8

Main P.C.B.


ZJ7402
IC1522
P1503
R7648
C1519
R1502
C7592
S7508
W231
W425
IR7501
W331
W202
W200
W201
W81
W71
W70
D7508
R7618
S7507
R7640
W444
W442
W441
TL7513
C1548
C1549
C1521
L7501
IP7501
C7573
C7570
R7615
C7565
C7593
LB7519
D7504
D7510
D7505
R7617
W66
W462
W461
W136
W135
W250
W251
D7506
LB7518
R7616
C7572
D7507
LB7517
LB7516
T7501
LB7515
C7569
Q7510
QR7508
R7612
C7571
R7614
D7501
W3
W16
W83
W47
W426
R7599
C7558
R7607
C7557
R7598
R7597
C7556
R7509
R7510
W502
W68
W17
C7555
K7504
IC7505
W420
W41
C7554
QR7507
R7621
C7577
W18
TW7501
W109
W158
W42
D7509
(EC/EP)
C7579
C7578
C7307
R7324
IC7302
R7325
C7308
W199
W84
R7623
C7584
W177
R7619
W282
W45
R7608
(EC/EP)
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LB7302
C7315
(EG)
W272
W217
W198
C7336
C7337
R7308
(EG)
R7655
R7606
R7572
C7514
W114
QR7401
W249
W196
TL7509
CL7508
CL7504
CL7505
CL7506
CL7507
R7530
LB7510
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C7534
C7546
C7520
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TL7501
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C7544
R7559
C7543
C7542
C7541
R7558
LB7509
LB7507
C7522
R7527
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W28
CL7501
IC7501
MK1
MK2
TL7503
C7551
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W37
W174
W225
W269
W418
TL7512
R7653
R7582
K7501
R7601
R7586
R7587
R7583
R7585
R7584
D7502
C7552
R7588
Q7507
Q7506
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TL7510
R7520
W278
W327
R7522
R7521
Q7505
R7523
W248
W195
W194
K7503
S7505
R7643
W24
R7528
R7529
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W161
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W163
W14
W355
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L7502
C7510
IC7504
DP7501
W369
W370
W367
W35
W134
Q7504
LB7501
W2
C7512
C7513
LB7502
C7507
R7506
C7504
R7507
R7508
C7505
C7503
W64
Q7503
R7504
C7502
R7505
Q7502
R7503
R7501
C7501
Q7501
W521
R7502
W268
W152
W354
S7506
R7642
W13
R7639
W538
S7503
R7641
S7502
ZJ7405
C1516
C1525
R1509
R1511
R1510
IC1506
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W292
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TL7511
W386
W432
W216
W431
W117
C4056
C4055
IC4011
C4059
W153
R4003
R4005
W88
W430
W433
W387
W388
W389
W390
W391
W393
W392
W394
W404
W226
W271
W402
W56
W528
W527
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W104
W229
W89
W523
W326
W43
W283
W36
W9
W263
W164
W444
W112
R7519
R7562
R7517
R7564
R7565
R7566
C7547
R7567
R7575
W625
R7570
R7574
R7568
R7571
R7535
R7534
R7543
R7544
R7561
C7532
C7531
R7548
R7549
TL7505
W215
R7537
R7536
LB7508
W523
W229
W89
W326
W43
W283
W36
W9
W263
W164
W444
W112
R7519
W4
W327
W186
W180
W230
W278
W215
W223
W179
W292
W386
W432
W216
W431
W117
W88
W430
W433
W387
W388
W389
W390
W391
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W56
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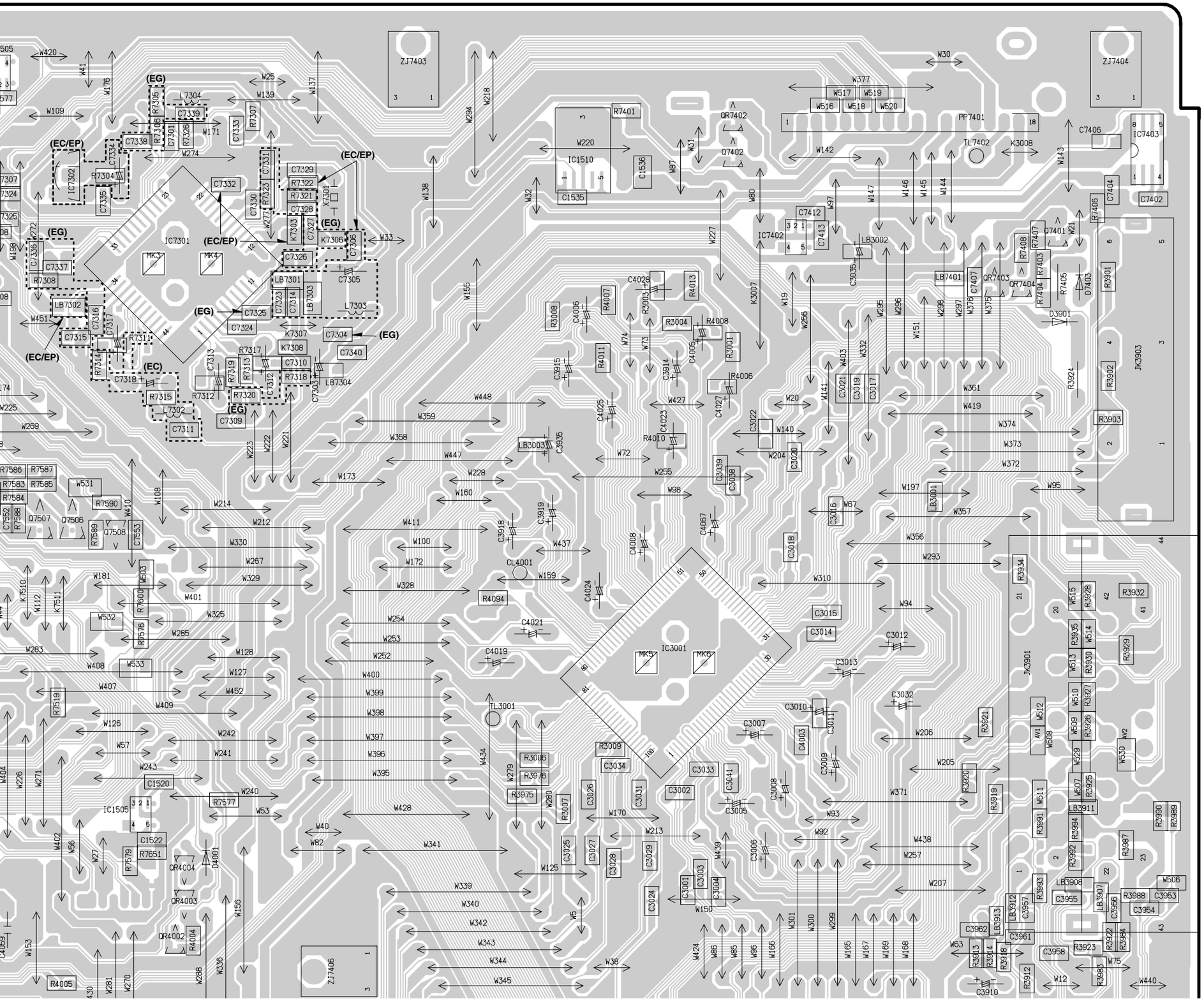
W527
W105
W104
W229
W89
W523



Location Map

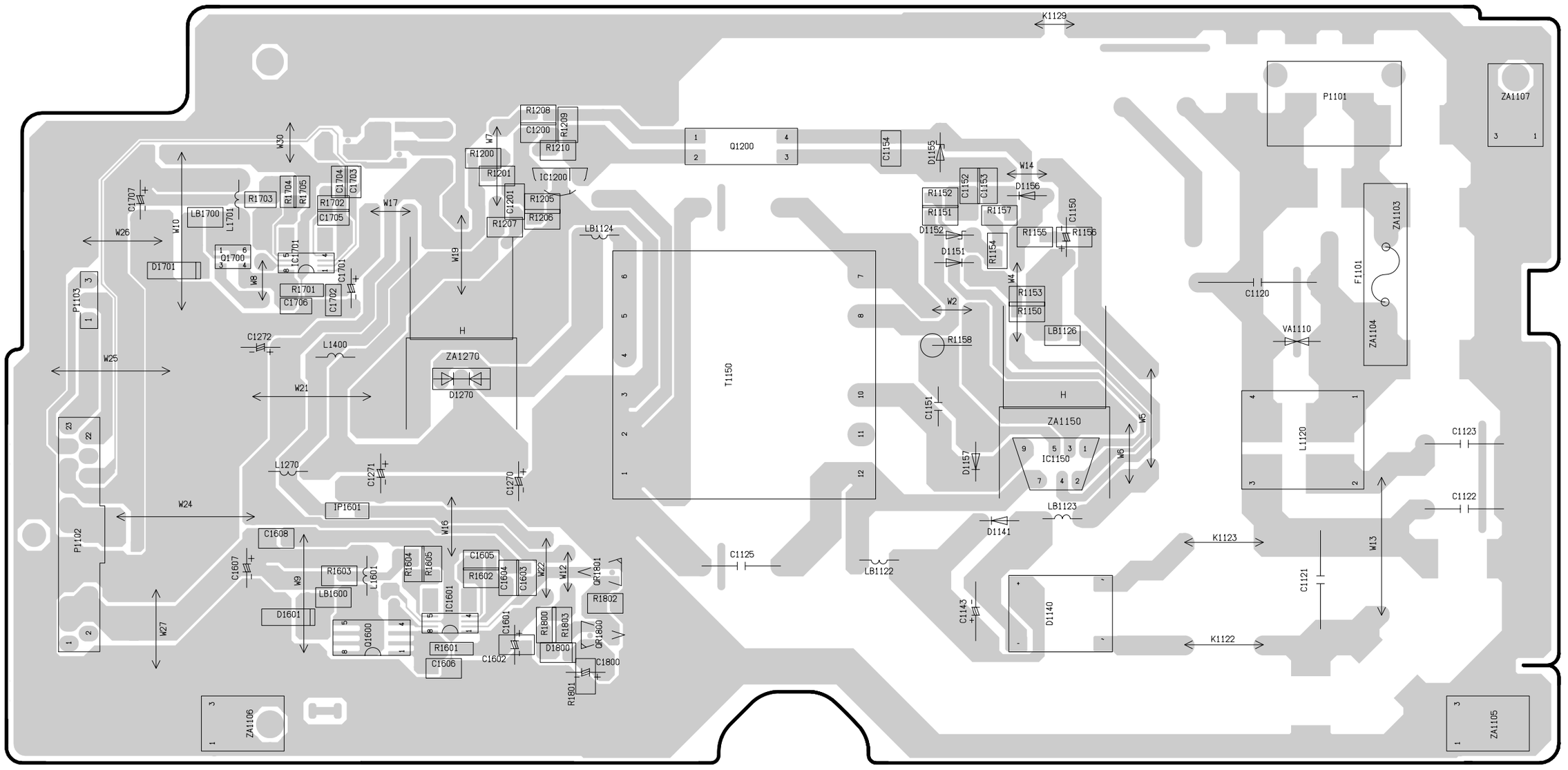
(REAR) (FRONT)

3/4	4/4
1/4	2/4

DMR-EH55EC/EP,EH56EG
Main P.C.B.
(RFKB79119HT:EH55EC,
RFKB79119JT:EH55EP,
RFKB79119GT: EH56EG)
(4/4 Section)

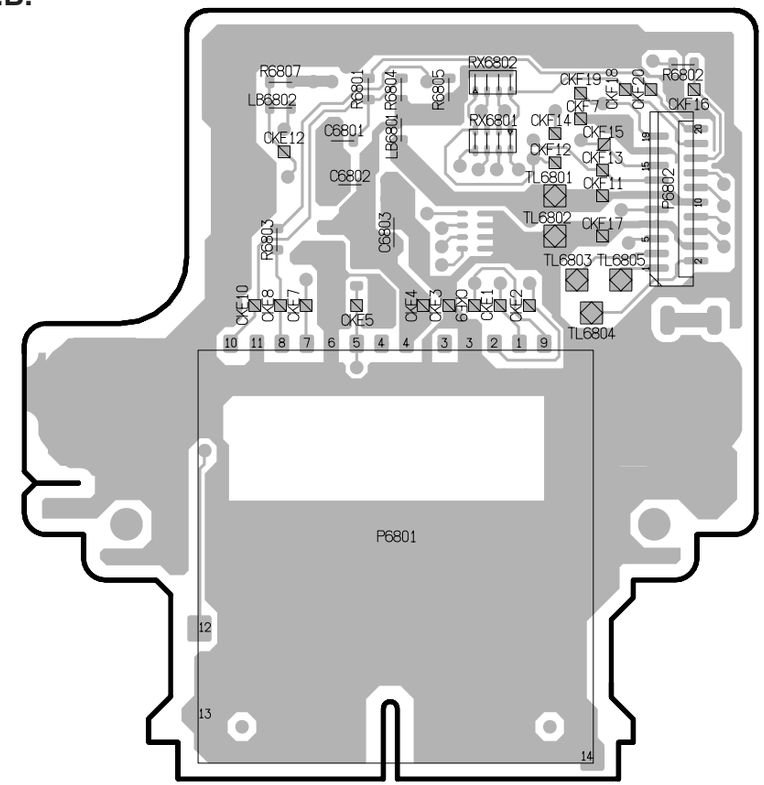
Power P.C.B.

Power P.C.B.												
Integrated Circuit		D1152	D-6	LB1123	B-6	C1200	D-4	C1707	D-1	R1210	D-4
IC1150	B-6	D1155	D-6	LB1124	D-4	C1201	D-4	C1800	A-4	R1601	A-3
IC1200	D-4	D1156	D-6	LB1126	C-6	C1270	B-3	**Resistor**		R1602	B-3
IC1601	B-3	D1157	B-6	LB1600	B-3	C1271	B-3	R1150	C-6	R1603	B-3
IC1701	C-2	D1270	C-3	LB1700	D-2	C1272	C-2	R1151	D-6	R1604	B-3
Transistor		D1601	B-2	**Fuse**		C1601	A-3	R1152	D-6	R1605	B-3
Q1200	D-5	D1701	C-2	F1101	C-8	C1602	A-4	R1153	C-6	R1701	C-2
Q1600	A-3	D1800	A-4	**Capacitor**		C1603	B-4	R1154	C-6	R1702	D-3
Q1700	C-2	**IC Protector**		C1120	C-7	C1604	B-3	R1155	D-6	R1703	D-2
Transistor-resistor		IP1601	B-3	C1121	B-8	C1605	B-3	R1156	D-6	R1704	D-2
QR1800	A-4	**Transformer**		C1122	B-9	C1606	A-3	R1157	D-6	R1705	D-2
QR1801	B-4	T1150	C-5	C1123	B-9	C1607	B-2	R1158	C-6	R1800	B-4
Connector		**Coil**		C1125	B-5	C1608	B-2	R1200	D-3	R1801	A-4
P1101	D-8	L1120	C-8	C1143	B-6	C1701	C-3	R1201	D-3	R1802	B-4
P1102	B-1	L1270	B-2	C1150	D-6	C1702	C-3	R1205	D-4	R1803	B-4
P1103	C-1	L1400	C-3	C1151	C-6	C1703	D-3	R1206	D-4	**Varistor**	
Diode		L1601	B-3	C1152	D-6	C1704	D-3	R1207	D-3	VA1110	C-8
D1140	B-6	L1701	D-2	C1153	D-6	C1705	D-3	R1208	D-4		
D1151	C-6	LB1122	B-5	C1154	D-5	C1706	C-2	R1209	D-4		



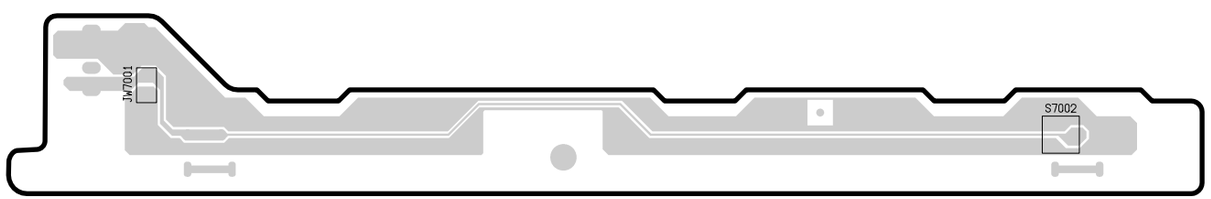
DMR-EH55EC/EP,EH56EG
Power P.C.B.
(VEP71110A)

SD Card P.C.B.



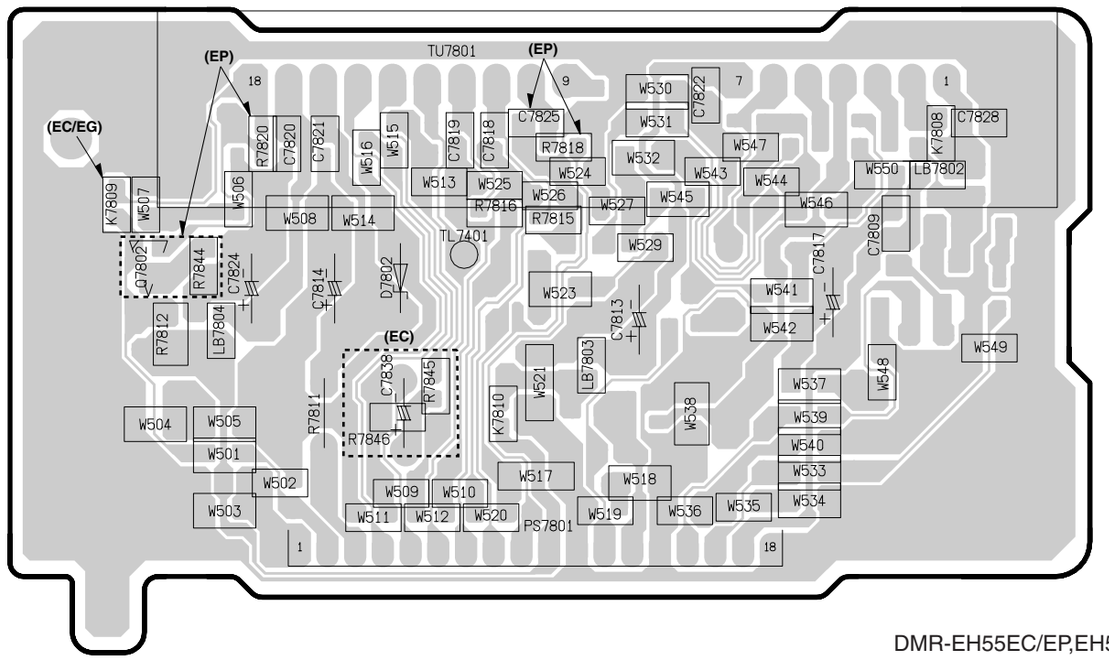
DMR-EH55EC/EP,EH56EG
SD Card P.C.B.
(VEP73136A)

Front (L) P.C.B.



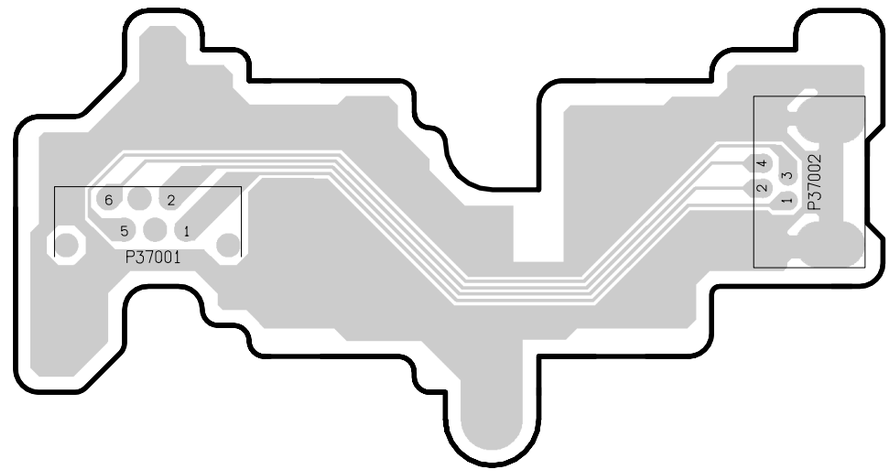
DMR-EH55EC/EP,EH56EG
Front (L) P.C.B.
(VEP70161A)

Tuner P.C.B.



DMR-EH55EC/EP,EH56EG
Tuner P.C.B.
(VEP07A91B:EH55EC,
VEP07A91D:EH55EP,
VEP07A91A:EH56EG)

DV Jack P.C.B.

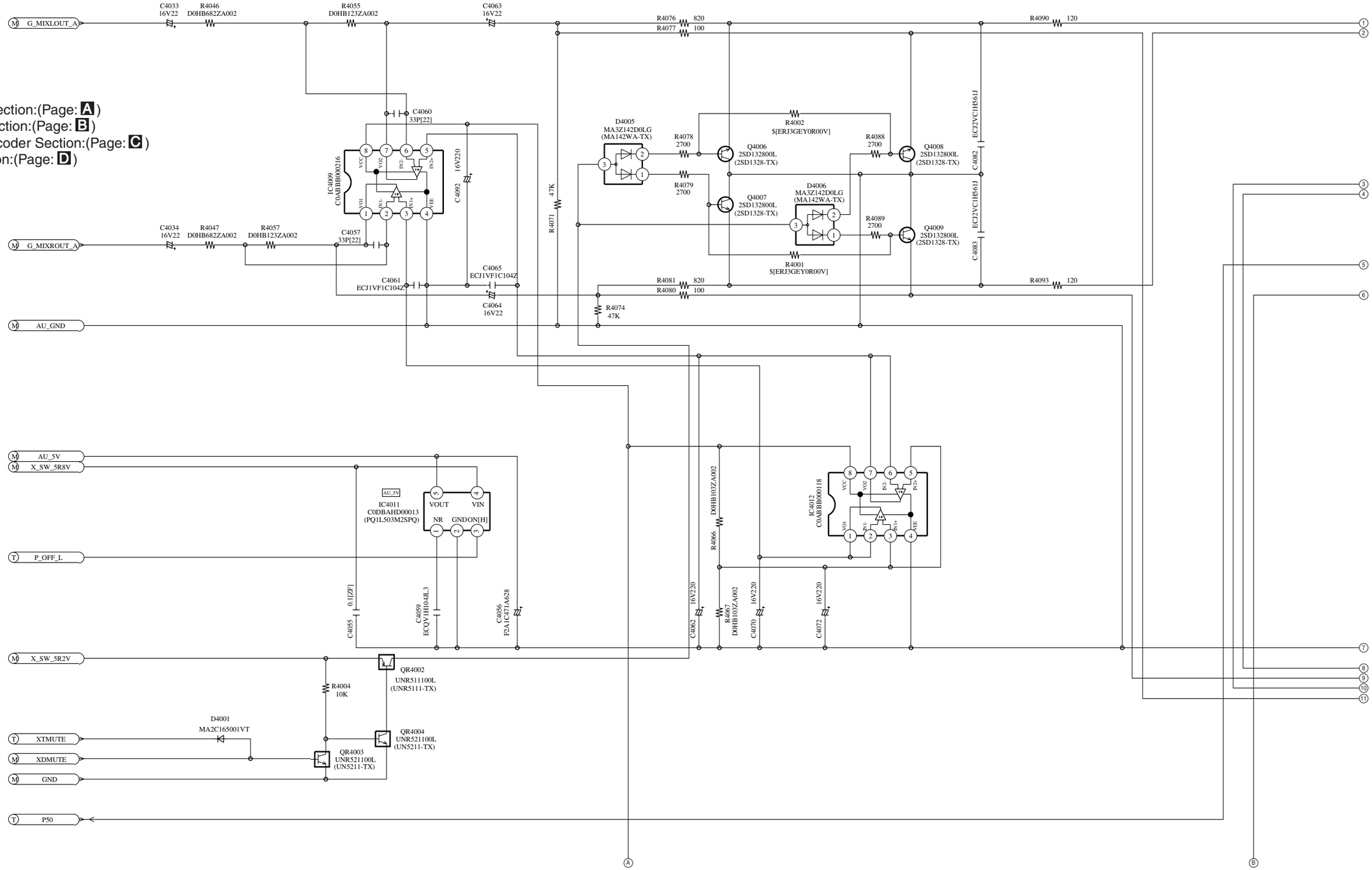


DMR-EH55EC/EP,EH56EG
DV JACK P.C.B.
(VEP73135A)

LOCATION MAP

1/4	2/4
3/4	4/4

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

TO
A/V I/O SECTION
(3/4)

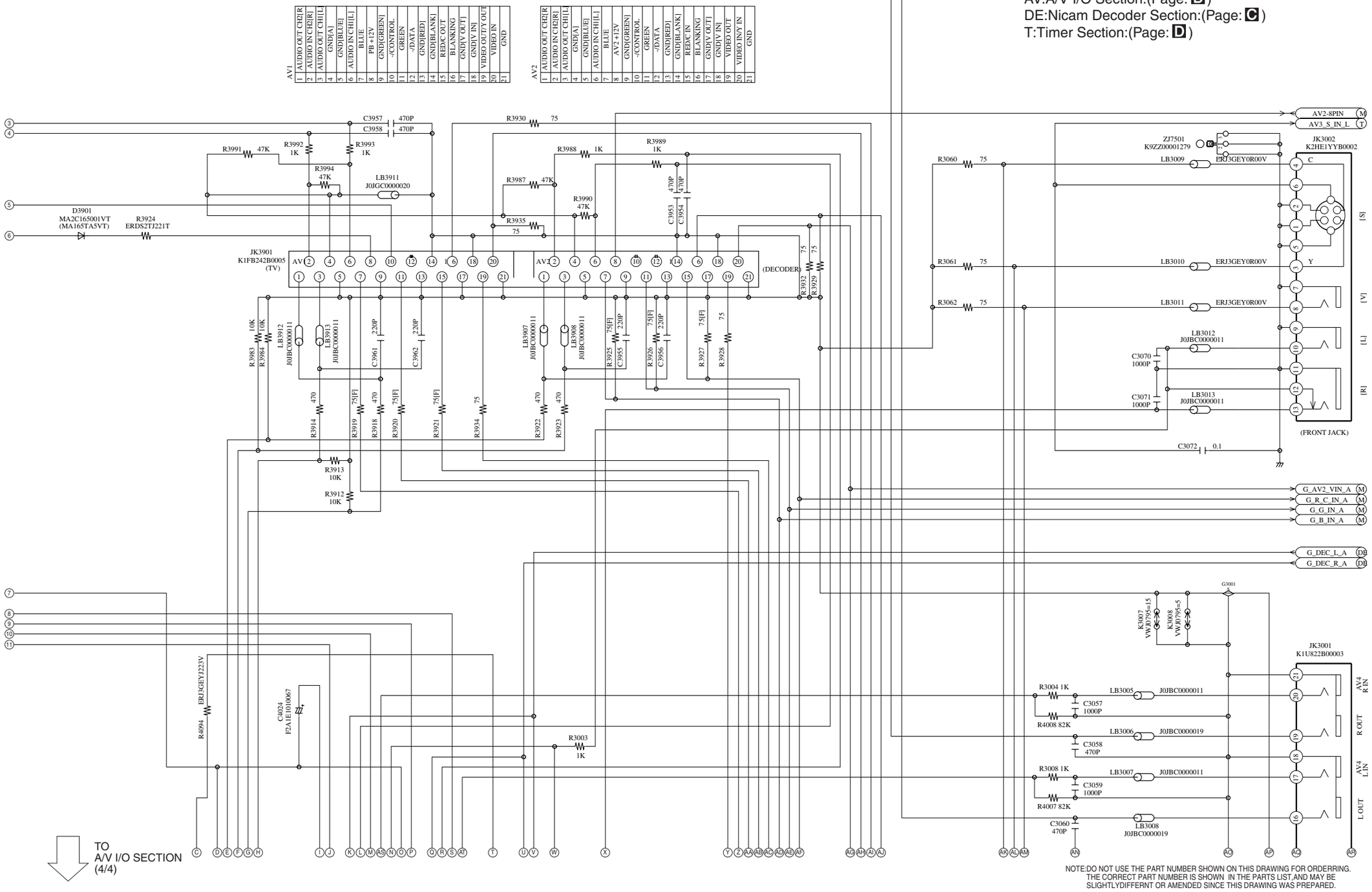
DMR-EH55EC/EP,EH56EG
A/V I/O(1/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

LOCATION MAP

1/4	2/4
3/4	4/4

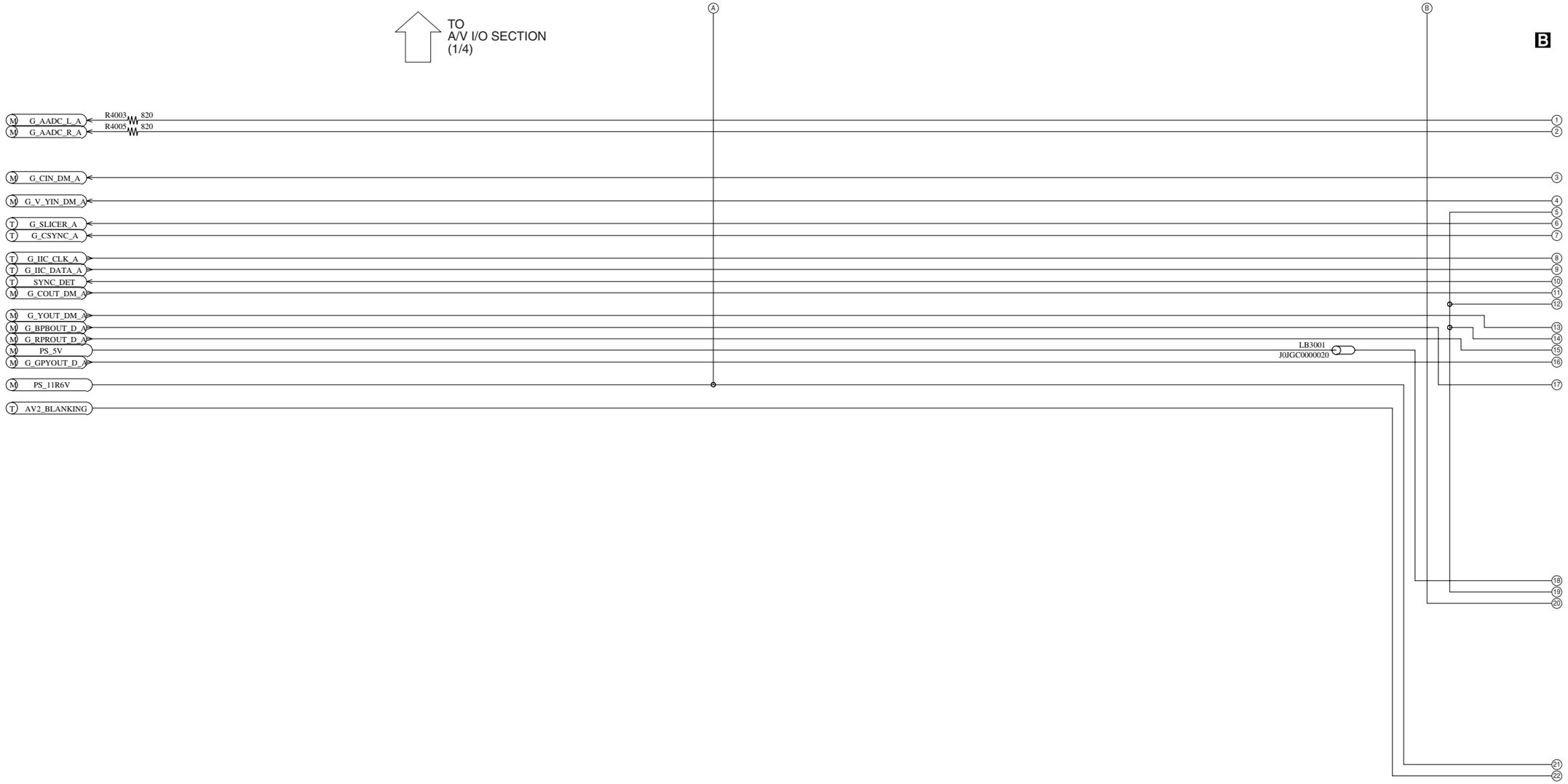
B

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
A/V I/O(2/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)



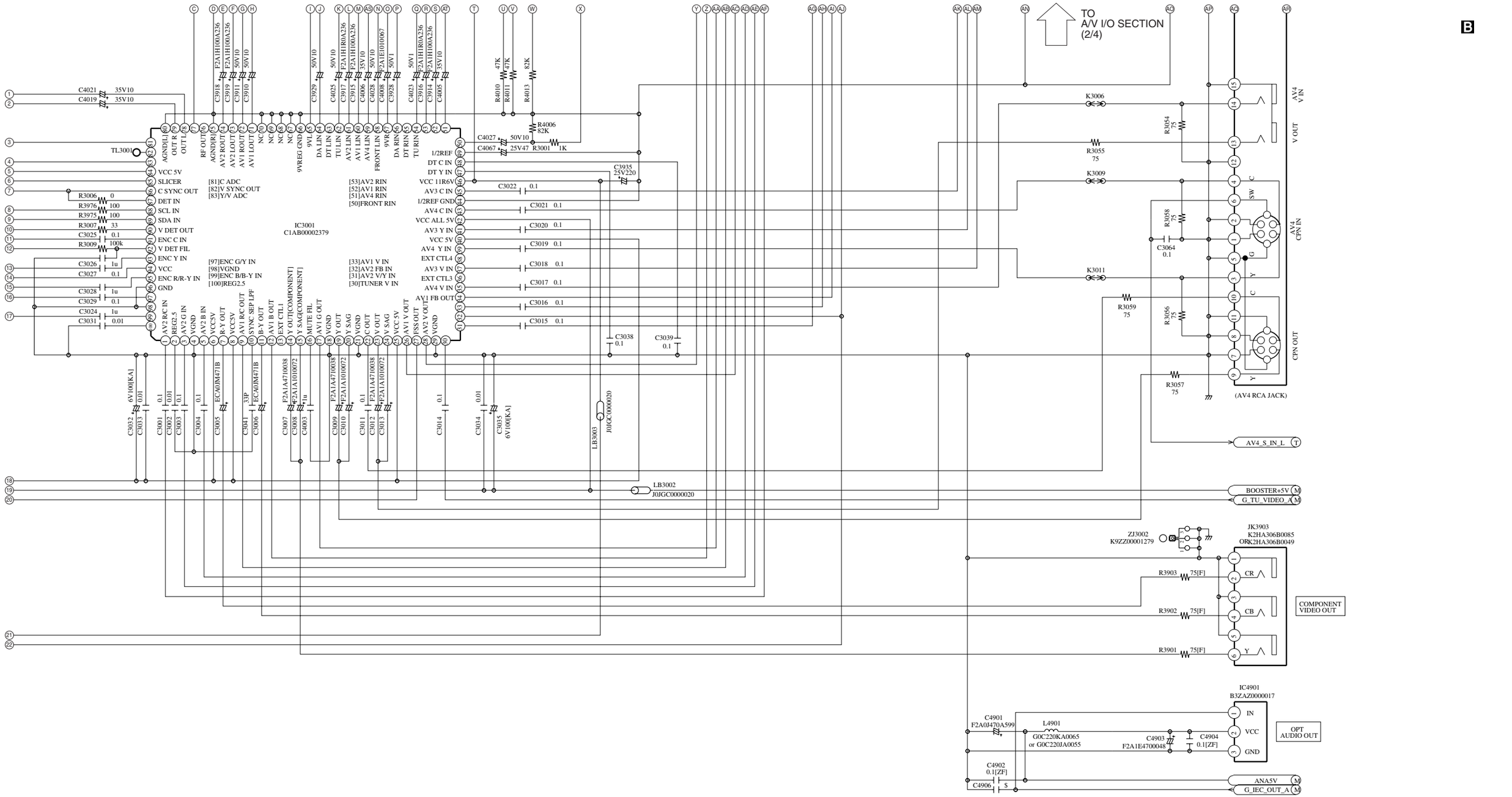
LOCATION MAP

1/4	2/4
3/4	4/4

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

DMR-EH55EC/EP,EH56EG
A/V I/O(3/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)



M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

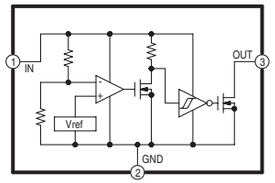
LOCATION MAP

1/4	2/4
3/4	4/4

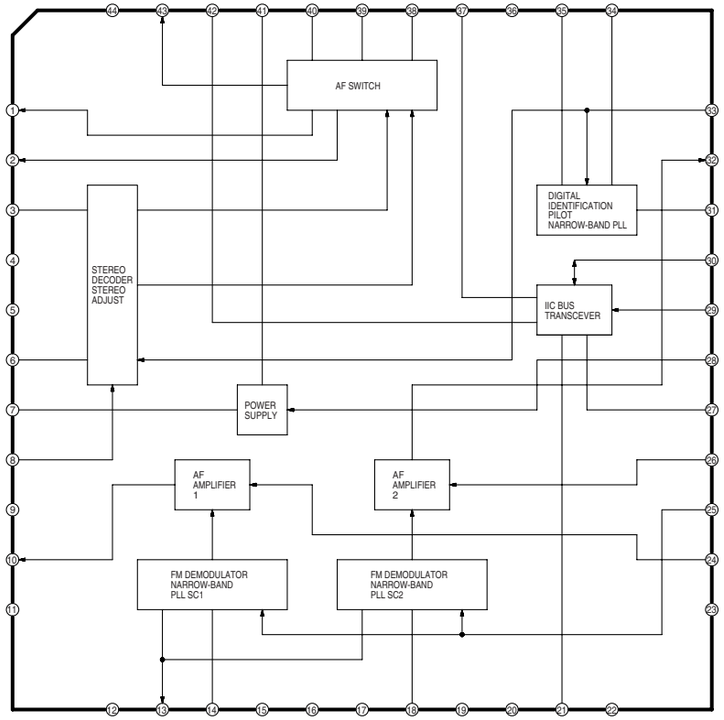
DMR-EH55EC/EP,EH56EG
A/V I/O(4/4) Section
(Main P.C.B.(2/4))
Schematic Diagram(AV)

6 7 8 9 10

IC7301
RESET
IC-DETAIL BLOCK DIAGRAM



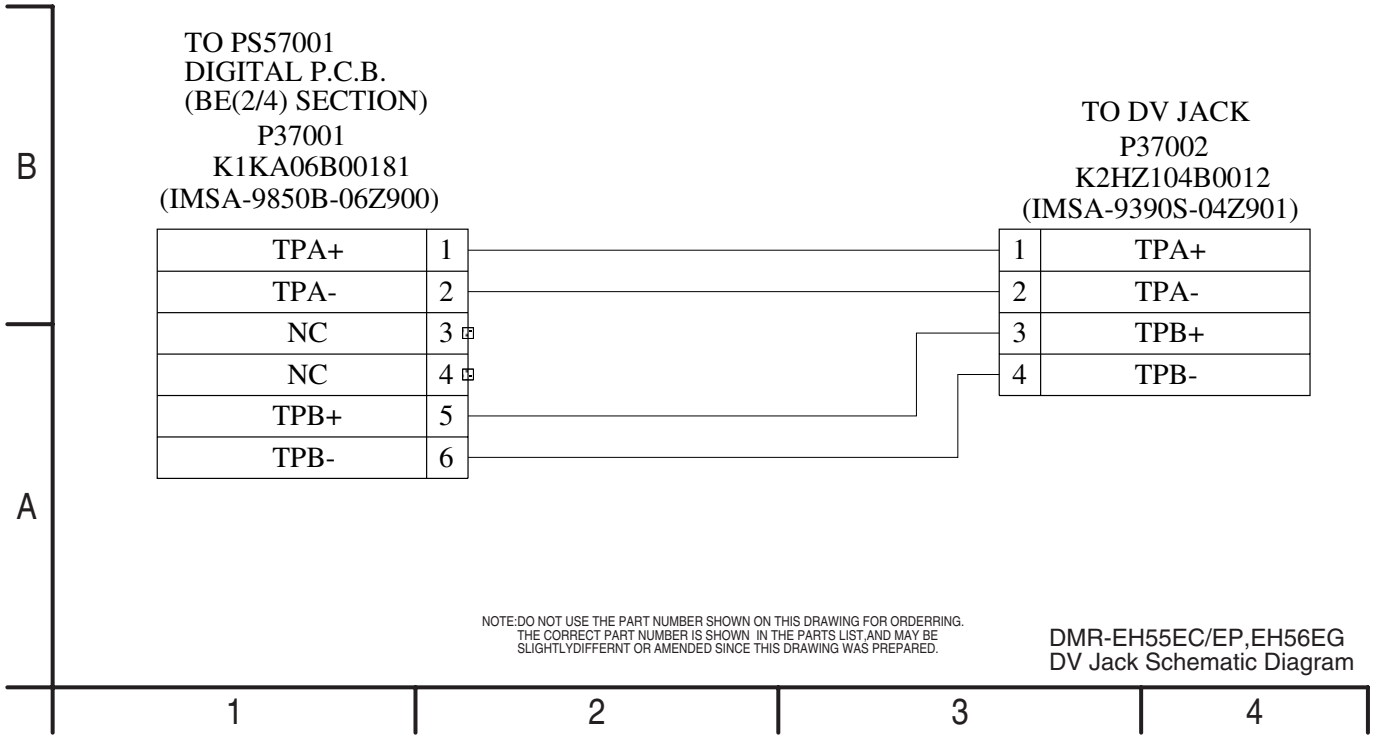
IC7302
DECODER
IC-DETAIL BLOCK DIAGRAM



M:Main Net Section:(Page: A)
AV:A/V I/O Section:(Page: B)
DE:Nicam Decoder Section:(Page: C)
T:Timer Section:(Page: D)

NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING. THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
Nicam Decoder Section
(Main P.C.B.(3/4))
Schematic Diagram(DE)



NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
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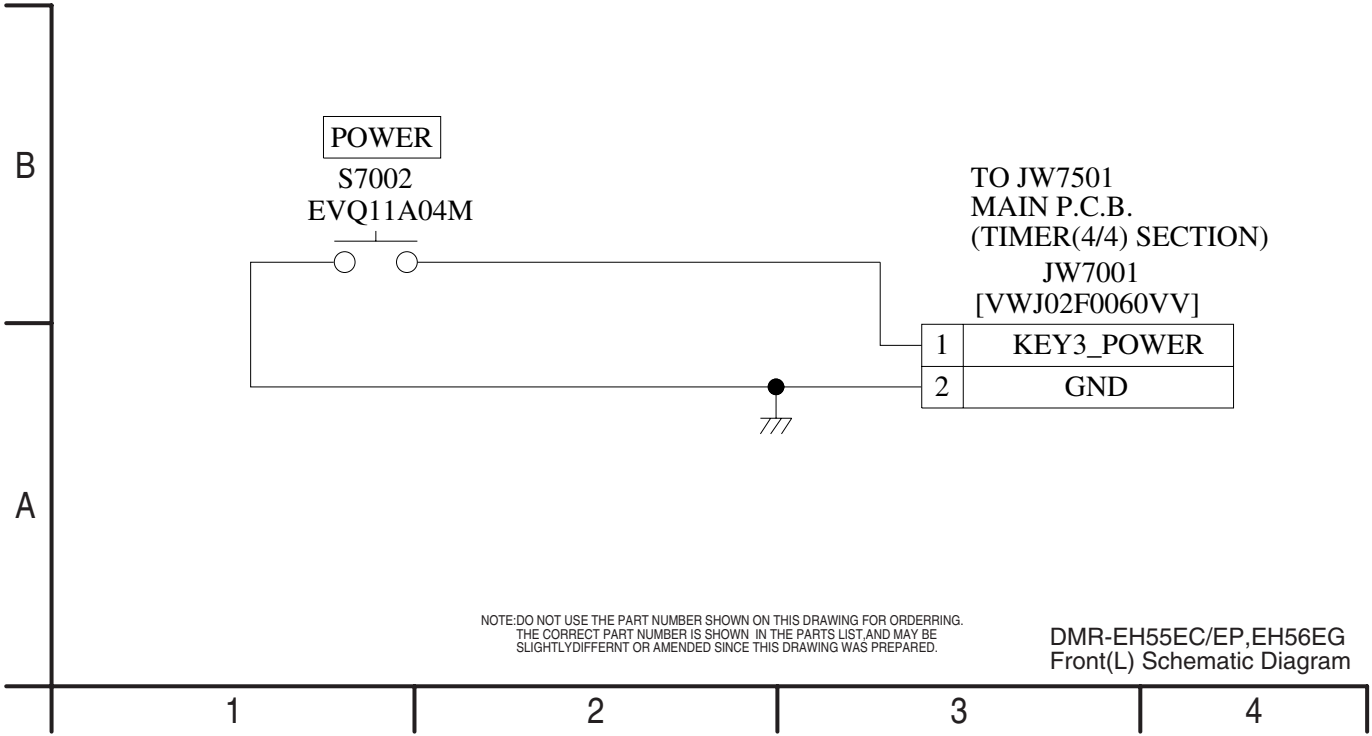
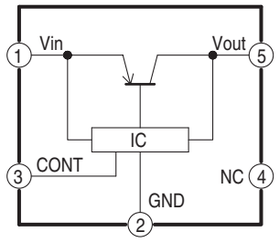
DMR-EH55EC/EP,EH56EG
DV Jack Schematic Diagram



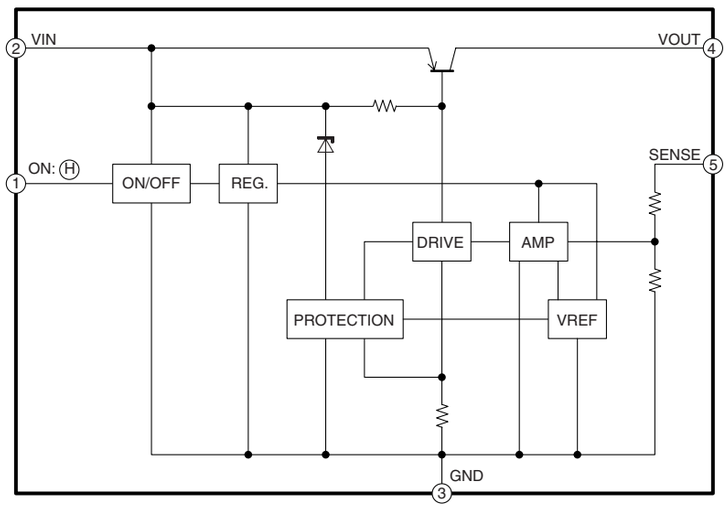
NOTE:DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERRING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE
SLIGHTLYDIFFERNT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

DMR-EH55EC/EP,EH56EG
Front(L) Schematic Diagram

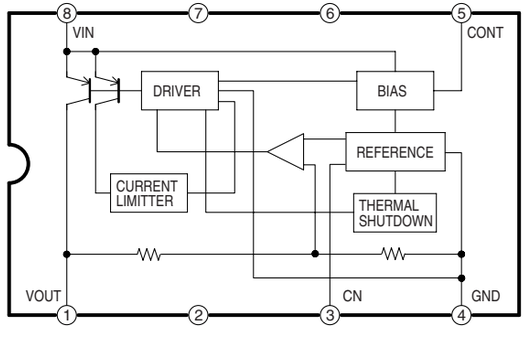
IC1505
XSW +3.3V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



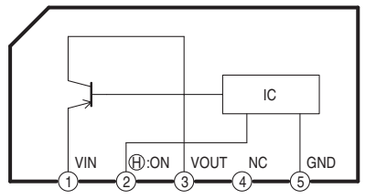
IC1506
DR +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



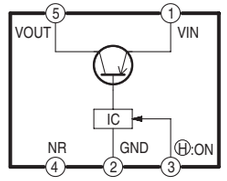
IC1507
XSW +5.2V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



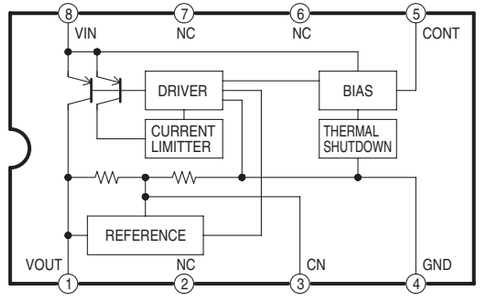
IC1510
TU +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



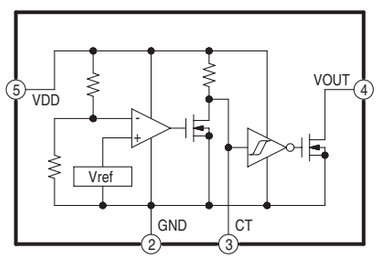
IC1520
ANA +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



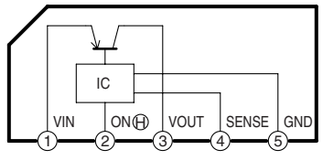
IC1521
ANA +3.3V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



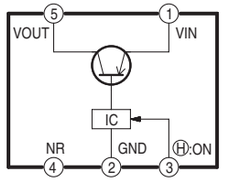
IC1522
RESET
IC-DETAIL BLOCK DIAGRAM



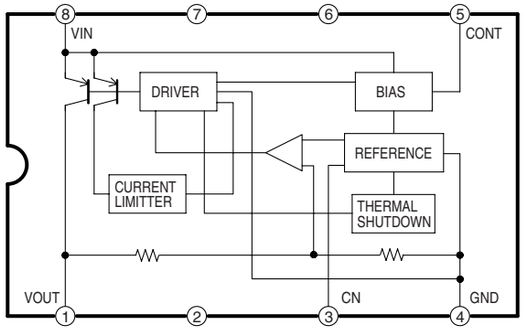
IC7401
PS +11.6V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



IC7402
BOOSTER +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

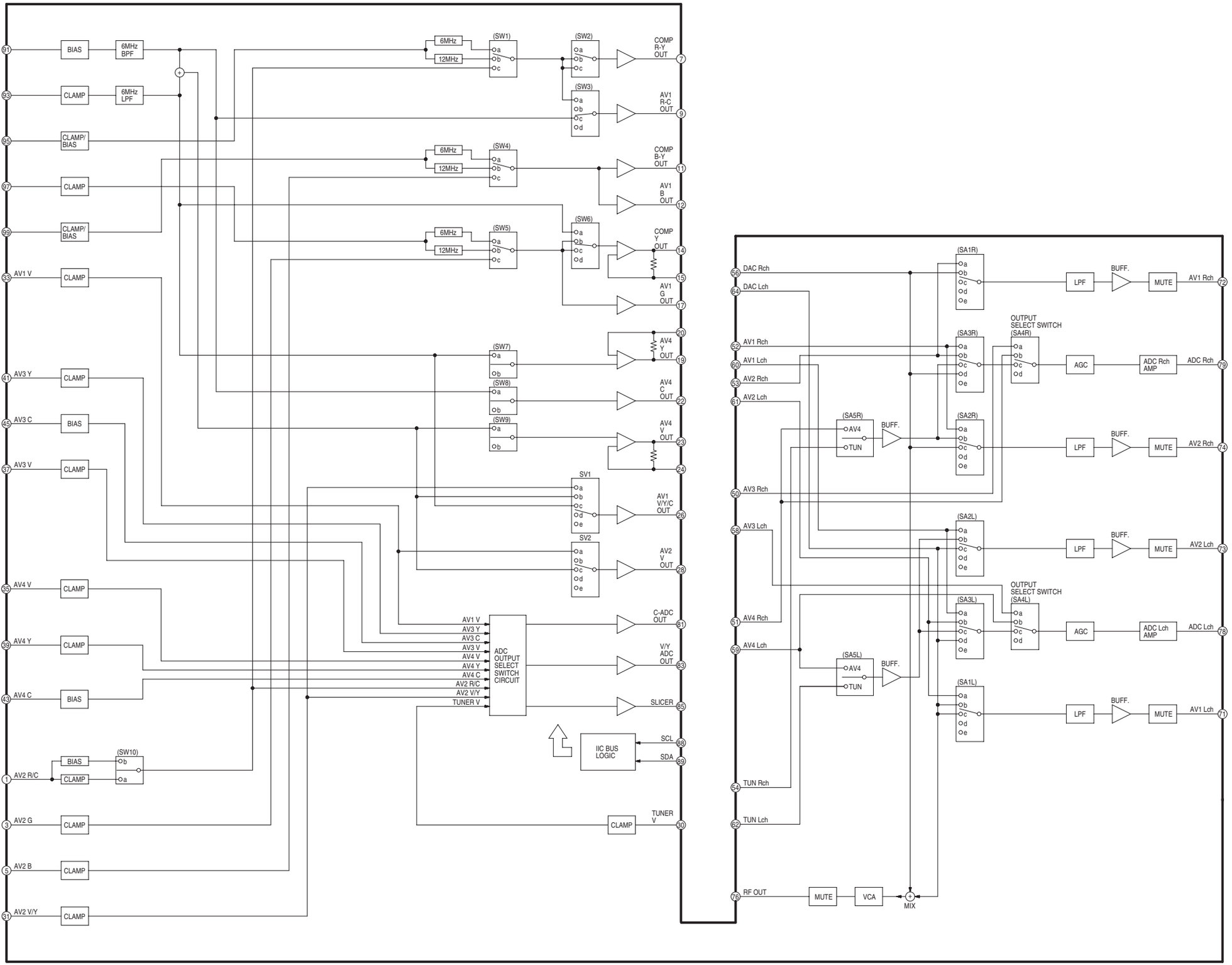


IC7403
PS +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM

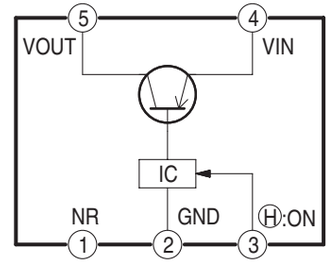


IC1505 Detail Block Diagram
IC1506 Detail Block Diagram
IC1507 Detail Block Diagram
IC1510 Detail Block Diagram
IC1520 Detail Block Diagram
IC1521 Detail Block Diagram
IC1522 Detail Block Diagram
IC7401 Detail Block Diagram
IC7402 Detail Block Diagram
IC7403 Detail Block Diagram
DMR-EH55EC/EP,EH56EG IC-Detail Block Diagram

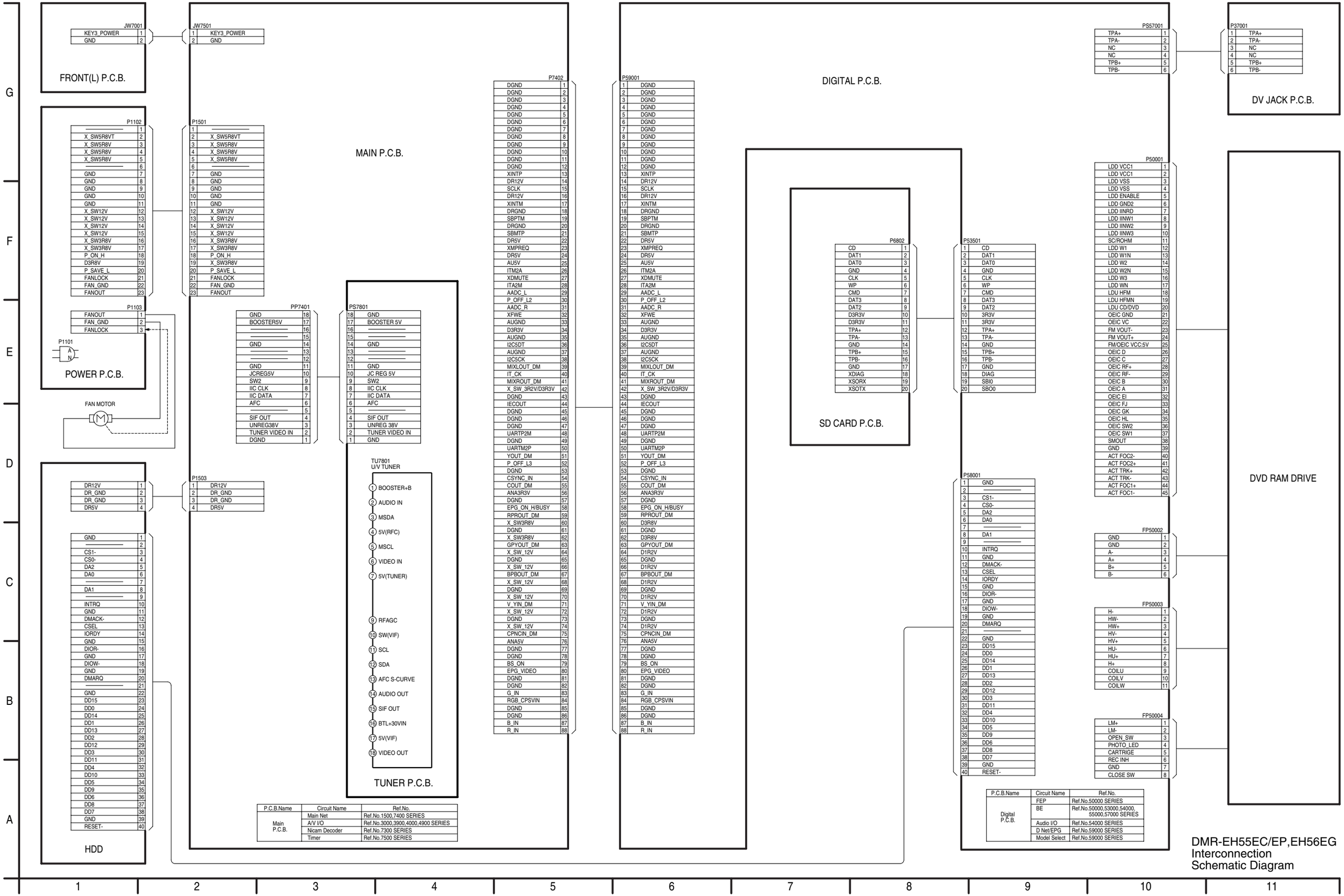
IC3001
VIDEO/AUDIO PROCESSOR
IC-DETAIL BLOCK DIAGRAM



IC4011
AU +5V SWITCHING REGULATOR
IC-DETAIL BLOCK DIAGRAM



IC3001 Detail Block Diagram
IC4011 Detail Block Diagram
DMR-EH55EC/EP,EH56EG IC-Detail Block Diagram



P.C.B.Name	Circuit Name	Ref.No.
Main P.C.B.	Main Net	Ref.No.1500,7400 SERIES
	A/V I/O	Ref.No.3000,3900,4000,4900 SERIES
	Nicam Decoder	Ref.No.7300 SERIES
	Timer	Ref.No.7500 SERIES

P.C.B.Name	Circuit Name	Ref.No.
Digital P.C.B.	FEP	Ref.No.50000 SERIES
	BE	Ref.No.50000,53000,54000, 55000,57000 SERIES
	Audio I/O	Ref.No.54000 SERIES
	D Net/EPG	Ref.No.59000 SERIES
	Model Select	Ref.No.59000 SERIES

DMR-EH55EC/EP,EH56EG
Interconnection
Schematic Diagram